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RAPTOR MANAGEMENT INFORMATION SYSTEM:

Users' Guide for

An Interactive REX2 Computer Program

Developed by:

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September 15, 1982

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ABSTRACT

The Raptor Management Information System (RMIS) is a collection of published and unpublished information on raptor management and human impacts on raptors and their habitats. It consists of three integrated parts: 1) a file of original source materials, 2) note cards arranged in keyworded subject categories which extract key passages from each original paper, and 3) an interactive computer program which produces annotated bibliographies by species (simultaneously for up to 32 species), by keyword (simultaneously for up to 32 keywords), or by any combination of species and keywords (up to 64 species/keyword combinations simultaneously). This users' manual concerns only the computer program.

The computer capability of the RMIS is on the REX2 Data Management System, a general purpose computer software system designed to provide economical storage and rapid retrieval of stored data. REX comands are comprised of English words, making the language easy to learn, remember, and use in a conversational mode. Persons who have never used computers before are able to obtain desired computer processing results with minimal instruction.

The RMIS computer program can be used by anyone who has a computer terminal with access to the BLM's Honeywell 66/80 System in Denver, Colorado. Non-BLM users should contact Richard R. Olendorff, Bureau of Land Management, 2800 Cottage Way, Sacramento, CA 95825 (FTS 468-4701; 916-484-4701), to determine the best way to handle specific requests for information. The system is not accessible without a BLM charge code and an approved password. All access, except at the BLM California State Office, involves "READ" permission only. General users cannot add to, delete from, or otherwise modify the data bases. All errors in the data bases should be brought to the attention of Richard R. Olendorff.

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I. INTRODUCTION

RAPTOR MANAGEMENT INFORMATION SYSTEM

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One of the most controversial aspects of implementing the National Environmental Policy Act and other important environmental legislation in the United States is whether to do extensive research, studies, and inventories on which to base environmental impact assessments, or simply to base them on existing information. While a certain level of inventory and basic research is frequently necessary to analyze the impacts of an action adequately, staff specialists are continually put on the defensive by their supervisors with the question, "Have you made maximum use of the literature and all other available information?"

The question is quite legitimate. Unfortunately, too often biologists must admit that they are not well prepared in this regard, and that their recommendations are based more on personal opinion and seat-of-the-pants analysis than on a synthesis of previous work on the subject. As a result, the credibility of biologists is often diminished, if not destroyed, by a few well stated questions regarding the literature and the availability of information.

The biologist's problem, of course, is the size of the literature, particularly unpublished agency and consultant reports, on raptor ecology and management. These subjects may constitute only a small percentage of the responsibilities of a biologist in a land managing agency, for example. Nonetheless, raptors are one of the most environmentally and politically sensitive groups of animals with which governmental agencies and industry must be concerned. Millions of dollars are spent on raptors each year in the United States alone by government, industry, and the private sector in general. A serious problem exists though, in that searches for information on the status of raptor populations, the impacts of land use, possible mitigation measures, and management techniques and recommendations for raptor conservation are being duplicated needlessly each year--at great expense!--throughout the country and the world.

In my work with the Bureau of Land Management, which involves several endangered raptor species, I have recognized a need to alleviate our biologists' dilemma with the ongoing information blitz on the subjects of raptor management and human impacts on raptors. Thus, for the past two years, in addition to my duties as Endangered Species Coordinator for the Bureau's California State Office, I have been synthesizing the raptor management and impact literature for the BLM with the aid of additional funding from the Edison Electric Institute and the Electric Power Research Institute.

The Raptor Management Information System has developed opportunistically as the result of the preparation of three lengthy synthesis papers:

Paper presented at the Annual Meeting of the Raptor Research Foundation, November 1, 1981, Montreal, Quebec, CANADA. Revised May 25, 1982.

one titled "Raptor Management the state of the art in 1980" is published in two different places; the second called "Suggested practices for raptor protection on power lines--the state-of-the-art in 1981" has been published as Raptor Research Report No. 4 distributed by Raptor Research Foundation; and the third on human impacts on raptors and their possible mitigation is in preparation.

In order for you to understand what the Raptor Management Information System can do for you in your respective jobs, I want to discuss in some detail just how the system evolved, how it is designed, and where it stands.

As I began reading the papers on which the three synthesis papers are based, I developed a systematic way to extract and categorize the pertinent information not unlike what one would do for a college term paper. The only difference is that it has developed into a huge information system involving over 1,800 papers (about 1,500 of which are fully in the system and filed according to reference control numbers), as well as about 14,000 note cards sorted into 116 keyworded categories. All of the papers and all of the note cards deal either with raptor management or with human impacts on raptors. A list of the keywords is provided elsewhere. The system has already proved to be an extremely powerful literature synthesis tool on the included topics, particularly because the note card files give the user easy access to information on each specific keyworded topic from 1,500 papers, a total which rises weekly, and also because we have emphasized acquisition of unpublished materials.

As soon as a paper or report is identified as possibly having pertinent management or impact information, a reference card is made out on a 5" by 8" file card, the standard size used throughout the system. This reference card has all of the standard bibliographic information to describe the paper and is placed in a specific card drawer labelled the "To Acquire File." Every time we go to a large library we take this file and fill in as many gaps as we can. When a paper is acquired, the reference card is attached to it and both are placed together in a file with others that are also ready to be read.

One of the quality controls on the system is that I read all of the papers myself. I do not have a graduate student botanist trying to determine what is important in a raptor paper. So you can have as much or as little confidence in the note card system as you might have in my ability to extract the pertinent paragraphs from each paper. Several users of the system have checked up on me by going back to the original papers to find more information. Generally, they have been unable to find anything else substantive from the management and impact standpoints.

My objective in reading each paper is to put pencil marks in the margins opposite each important paragraph or short passage. This may involve one sentence out of some papers or a hundred separate paragraphs from others. After being read and marked, each paper is put in a bin for xeroxing.

At this point we depart from what is normally possible in preparing a college term paper. Each page that has pencil marks in the margins is xeroxed so that the important passages can be cut out without destroying

the original paper and then taped to a 5" by 8" card. The author and the date of the publication are written at the bottom of each card resulting in a note card that is still a primary source of information. Generally, college term paper note cards are hand-written and paraphrased and, therefore, are secondary sources of material.

All of the note cards, the reference card, and the original paper are clipped together and placed in a "Ready to File" bin for actual addition to the system. The next step in adding a paper to the system is to assign the paper a four-digit control number and stamp the reference card so that it can be identified as being in the system. The control number is written in the upper left hand corner of the reference card in green; the citation itself is proofread and edited; and the abstract (if one had been prepared previously) is edited and okayed.

Next, the control number is written in green in the upper right hand corner of each note card to avoid any confusion where there are several papers by the same author in a given year. We have found that the use of control numbers on reference cards and note cards avoids many filing problems when the system is actually put to use.

On the cover or first page of each original paper we also put the control number, the "Raptor Management Information System" stamp, and the author and year (along the length of the paper to facilitate filing). The date the paper was reviewed was noted at the time it was read.

Before all of these items are filed away, each paper is scanned for species names to be added to the species index cards. This is all done by control numbers as has been a common practice with several of our large raptor bibliographies. The species index for the papers in the system is all inclusive with regard to subject matter, i.e., a paper's control number is included for a mentioned species even if the species was not mentioned in the management or impact context. If a paper totally or substantially concerns a particular species, the control number is followed by an asterisk on the species index card.

Next, all of the products are filed in their appropriate places. The reference cards are put in their drawers alphabetically by author and then by year. The original papers are placed in a file cabinet according to their control number. All papers which were read and were not found to have management or human impact implications are filed in a separate cabinet. Finally, the note cards are placed in a drawer where they remain until time is found to assign keywords to them.

Keywording essentially involves a rereading of the pertinent paragraphs and categorizing them into one of 102 keyword categories. In some cases a primary keyword which is in the upper left corner is supplemented with a secondary keyword in the middle of the top line. If the note card can be attributed to one or more species, this is indicated in the upper right corner under the control number. Completed note cards are usually stored for awhile until a few hundred have accumulated, and then they are sorted and filed according to the paper control numbers within each keyword category.

I assume that for most of you this is your first exposure to the Raptor Management Information System. This has been by design because: 1) it had to develop in magnitude to some degree before it would be useful to a large number of people; 2) it has taken time for it to evolve and to be debugged so that papers, note cards, and reference cards wouldn't get lost in the system itself; 3) I did not and may still not have the capability to handle a large number of user requests for note cards; and 4) it was necessary to process a small number of user requests to see what was involved and how time consuming they were.

What we have found after dealing with about 300 users is, first, that most people who come to Sacramento to use the note card system cannot extract everything they need in less than a day or two because of the sheer magnitude of the information available. Some have spent over two weeks in the office. Second, the user who writes in or phones in a request for note cards must be able to ask a very specific question or, again, the magnitude of the information is overwhelming and, of course, I'm the one who is overwhelmed. For example, if you ask for everything on the effects of grazing or logging on raptors or everything on artificial feeding of wild raptor populations, your request for note cards can be handled. But, if you ask for everything on artificial nest structures or hacking or all raptor management recommendations, you simply will have to come to Sacramento to use the note cards. You can be supplied with an annotated bibliography, however (see below). Thirdly, requests for xerox copies of original papers are a problem because making them is time consuming and the government must charge the user 25¢ per page (10¢ if the user does own copying) for such a service. This is generally unacceptable to most users.

The final lesson was actually known from the beginning: the system should be computerized to cut down on the time it takes to process each request. Computerization of about 1,800 reference cards, including author, title, citation, and up to 15 lines of annotation, is now complete. Annotated bibliographies can now be produced upon request either by keyword, by species, or both. This computer capability makes the system widely useable throughout the world and makes the filling of user requests for such bibliographies a routine matter. This user manual concerns the use of this computer capability. Requests to use the note card system should be directed to the author.

There is a great deal of emphasis (though not necessarily commitment) in government today on what is called information management or information transfer. Nearly every interagency or intergovernmental agreement speaks of improving program efficiency through cooperative and cost effective sharing of specialized expertise and information, coordination of research and studies to avoid duplication of effort, and/or facilitating decisionmaking processes through cost effective approaches to problem solving using existing information.

Yet, we still conduct incomplete searches for available information over and over again each time an issue is faced by a different staff specialist and his supervisor. This is a collossal waste of time and money which can be alleviated by effective information transfer from a centralized source. Thus, the Raptor Management Information System can benefit

both staff specialists and land managers, not to mention spinoff benefits to industry, consultants, and students. These benefits result because rapid analysis of existing information expedites land-use decisionmaking processes by providing quicker turnaround for project clearances, and because the welfare of raptor populations and habitats is more effectively safeguarded if decisions are made with the best available knowledge. Both sides benefit.

II. RAPTOR DATA BASE

The Raptor Data Base is a listing of every item in the RMIS. Each item is given a discrete four-digit reference number which is vital to the analyses conducted by the computer to produce reports. Thus, each reference number is associated with a reference (or item) consisting of an author (or list of authors), title, citation, and annotation (or abstract). Items are added to the RMIS only if they have information on raptor management or human impacts on raptors (includes both positive and negative impacts). A paper or book which deals only with the life history or ecology of a particular species would not be found in the RMIS.

The Raptor Data Base is referenced as "CA700/RAPLIB/BPCA1DDB." It contains 25 elements:

E1:REF-NUM
E2:AUTHOR 1
E3:AUTHOR 2
E4:TITLE 1
E5:TITLE 2
E6:TITLE 3
E7:CITATION 1
E8:CITATION 2
E9:CITATION 3
E10-E24:ANNOTATION 1 through 15
E25:MISCELLANEOUS

Details concerning the format for the Raptor Data Base elements are given on the following page.

United States Department of the Interior
Bureau of Land Management

ELEMENT DESCRIPTIONS

Title Raptor Data Base

Program Name /RAPLIB/BPCA1DDB Program No.

Elem. No.	Element Name	Type	Limits	Remarks
1	REF-NUM	T1	4 char	Each item in the data base has a unique four-digit reference number for identification.
2	AUTHOR 1	T5	75	Listing of author(s) of the item.
3	AUTHOR 2	T5	75	Continuation of author list (if necessary) (maximum equals 75 X 2 or 150 characters).
4	TITLE 1	T5	75	Title of the item.
5	TITLE 2	T5	75	Continuation of title (if necessary).
6	TITLE 3	T5	75	Continuation of title (if necessary) (maximum space available for a title is 75 X 3 = 225 characters).
7	CITATION 1	T5	75	Item source.
8	CITATION 2	T5	75	Continuation of source citation.
9	CITATION 3	T5	75	Continuation of source citation (maximum space for a citation is 75 X 3 or 225 characters).
10	ANNOTATION 1	T5	75	Annotation 1-15 is a brief abstract of the item. Eacn annotation element contains one line of information of up to 75 characters. The maximum annotation for an item is 75 X 15 or 1,125 characters. Generally, only the management and impact information is abstracted for each item.
11	ANNOTATION 2	T5	75	
12	ANNOTATION 3	T5	75	
13	ANNOTATION 4	T5	75	
14	ANNOTATION 5	T5	75	
15	ANNOTATION 6	T5	75	
16	ANNOTATION 7	T5	75	
17	ANNOTATION 8	T5	75	

ELEMENT DESCRIPTIONS

Title Raptor Data Base

Program Name /RAPLIB/BPCA1DDB Program No.

Elem. No.	Element Name	Type	Limits	Remarks
18	ANNOTATION 9	T5	75	
19	ANNOTATION 10	T5	75	
20	ANNOTATION 11	T5	75	
21	ANNOTATION 12	T5	75	
22	ANNOTATION 13	T5	75	
23	ANNOTATION 14	T5	75	
24	ANNOTATION 15	T5	75	
25	MISCELLANEOUS	T5	75	This element is used for comments by the compiler.

III. SPECIES DATA BASE

The Species Data Base matches the reference numbers of all items pertaining to a particular species with the corresponding reference numbers in the Raptor Data Base. Each species in the Species Data Base will have one or more (sometimes hundreds) of reference numbers (items) associated with it.

A list of Raptor species and their 5-character codes can be found on pages 11 through 17. Both common and scientific names are listed according to Brown and Amadon (1968), "Eagles, Hawks and Falcons of the World," pp. 163-172. A standardized list of nocturnal raptors has not been chosen at this time. Generally, codes consist of the first two letters of the generic name, and the first three letters of the species name. In the case of duplicates, the fifth letter is changed to a numeral (e.g., HALEU, HALE1, and HALE2). Species are listed alphabetically by species code.

The Species Data Base is referenced as "RAPLIB/BPCA3DDB." It contains four elements:

E1:SPECIES
E2:REF-NUM
E3:FLAG
E4:COMMON NAME

In some records the data element "FLAG" will contain an asterisk. This specifies that the item (listed by reference number) is wholly or substantially about a particular species. This allows production of reports which give only the most substantial items concerning the species in question.

Generally, the user need not be concerned with this data base except to be familiar with the list of species codes. These codes are used in conjunction with the program "BP010RIP" to produce reports by species, keyword, or combinations of the two.

United States Department of the Interior
Bureau of Land Management

ELEMENT DESCRIPTIONS

Title Species Data Base

Program Name /RAPLIB/BPCA3DDB Program No. _____

Elem. No.	Element Name	Type	Limits	Remarks
1	SPECIES	T4	5 char	Species is a 5-character code that identifies a particular species of Raptor. See page 11-17.
2	REF-NUM	T1	4 char	Reference number is used to locate a specific item in the Raptor Data Base.
3	FLAG	T3	1 char	An asterisk in this element specifies that an item (listed by reference number) is wholly or substantially about a particular species.
4	COMMON NAME	T5	32 char	Species' common name as given in Brown and Amadon (1968) for diurnal raptors. (Nocturnal species are not listed according to any particular authority.)

RAPTOR MANAGEMENT INFORMATION SYSTEM
SPECIES CODE LIST

CODE	COMMON NAME	SCIENTIFIC NAME
ACALB	Pied Goshawk	Accipiter albogularis
ACBAD	Shikra	Accipiter badius
ACBIC	Bicoloured Sparrow-hawk	Accipiter bicolor
ACBRA	New Britian Sparrow-hawk	Accipiter brachyurus
ACBRE	Levant Sparrow-hawk	Accipiter brevipes
ACBUE	Burger's Sparrow-hawk	Accipiter buergersi
ACBUT	Nicobar Shikra	Accipiter butleri
ACCAS	Chestnut-bellied Sparrow-hawk	Accipiter castanilius
ACCIR	Collared Sparrow-hawk	Accipiter cirrhocephalus
ACCOL	American Collared Sparrow-hawk	Accipiter collaris
ACCOO	Cooper's Hawk	Accipiter cooperii
ACERY	Moluccan Sparrow-hawk	Accipiter erythrauchen
ACER1	Red-thighed Sparrow-hawk	Accipiter erythropus
ACFAS	Australian Goshawk	Accipiter fasciatus
ACFRA	France's Sparrow-hawk	Accipiter francesii
ACGEN	Northern Goshawk	Accipiter gentilis
ACGRI	Celebes Crested Goshawk	Accipiter griseiceps
ACGR1	Grey-throated Goshawk	Accipiter griseogularis
ACGUL	Japanese Lesser Sparrow-hawk	Accipiter gularis
ACGUN	Gundlach's Hawk	Accipiter gundlachi
ACHAP	New Caledonia Sparrow-hawk	Accipiter haplochrous
ACHEN	Gray's Goshawk	Accipiter henicogrammus
ACHE1	Henst's Goshawk	Accipiter henstii
ACIMI	Imitator Sparrow-hawk	Accipiter imitator
ACLUT	Blue Sparrow-hawk (Grey Sparrow-hawk)	Accipiter luteoschistaceus
ACMAD	Madagascar Sparrow-hawk	Accipiter madagascariensis
ACMEL	Black-mantled Accipiter	Accipiter melanochlamys
ACME1	Black Sparrow-hawk (Great Sparrow-hawk)	Accipiter melanoleucus
ACMEY	Meyer's Goshawk	Accipiter meyerianus
ACMIN	African Little Sparrow-hawk	Accipiter minullus
ACNAN	Celebes Little Sparrow-hawk	Accipiter nanus
ACNIS	European Sparrow-hawk	Accipiter nisus
ACNOV	White Goshawk	Accipiter novaehollandiae
ACOVA	Ovampo Sparrow-hawk	Accipiter ovampensis
ACPOL	New Guinea Grey-headed Goshawk	Accipiter poliocephalus
ACPO1	Grey-bellied Goshawk	Accipiter poliogaster
ACPRI	New Brittan Grey-headed Goshawk	Accipiter princeps
ACRHO	Vinous-breasted Sparrow-hawk	Accipiter rhodogaster
ACRUF	Fiji Goshawk	Accipiter rufitorques
ACRU1	Rufous-breasted Sparrow-hawk	Accipiter rufiventris
ACSOL	Grey Frog Hawk	Accipiter soloensis
ACSTR	Sharp-shinned Hawk	Accipiter striatus
ACSUP	Tiny Sparrow-hawk	Accipiter superciliosus
ACTAC	African Goshawk	Accipiter tachiro
ACTRI	Spot-tailed Accipiter	Accipiter trinotatus
ACTR1	Crested Goshawk	Accipiter trivirgatus
ACVIR	Besra Sparrow-hawk	Accipiter virgatus

AEACA	Saw-whet Owl	Aegolius acadicus
AEFUN	Boreal Owl	Aegolius funereus
AEMON	Cinereous Vulture (European Black Vulture)	Aegypius monachus
AQAUD	Wedge-tailed Eagle	Aquila audax
AQCHR	Golden Eagle	Aquila chrysaetos
AQCLA	Greater Spotted Eagle	Aquila clanga
AQGUR	Gurney's Eagle	Aquila gurneyi
AQHEL	Imperial Eagle	Aquila heliaca
AQPOM	Lesser Spotted Eagle	Aquila pomarina
AQRAP	Tawny Eagle (Steppe Eagle)	Aquila rapax
AQVER	Verreaux's Eagle	Aquila verreauxi
AQWAH	Wahlberg's Eagle	Aquila wahlbergi
ASFLA	Short-eared Owl	Asio flammeus
ASOTU	Long-eared Owl	Asio otus
ATCUN	Burrowing Owl	Athene cunicularia
ATNOC	Little Owl	Athene noctua
AVCUC	African Cuckoo-Falcon	Aviceda cuculoides
AVJER	Jerdon's Baza	Aviceda jerdoni
AVLEU	Black Baza	Aviceda leuphotes
AVMAD	Madagascar Cuckoo-Falcon	Aviceda madagascariensis
AVSUB	Crested Baza	Aviceda subcristata
BUAEQ	Rufous Crab Hawk (Aequinoctial Hawk)	Buteogallus aequinoctialis
BUALB	Zone-tailed Hawk	Buteo albonotatus
BUAL1	White-tailed Hawk	Buteo albicaudatus
BUANT	Common Black Hawk	Buteogallus anthracinus
BUAUG	African Red-tailed Buzzard	Buteo auguralis
BUBLA	Blakistan's Fish Owl	Bubo blakistani
BUBRA	Short-tailed Hawk	Buteo brachyurus
BUBR1	Madagascar Buzzard	Buteo brachypterus
BUBUB	Eurasian Eagle Owl	Bubo bubo
BUBUT	Common Buzzard	Buteo buteo
BUGAL	Galapagos Hawk	Buteo galapagoensis
BUHEM	Upland Buzzard	Buteo hemilasius
BUIND	Grey-faced Buzzard Eagle	Butastur indicus
BUJAM	Red-tailed Hawk	Buteo jamaicensis
BULAG	Rough-legged Buzzard	Buteo lagopus
BULEU	Rufous-thighed Hawk	Buteo leucorrhous
BULIN	Red-shouldered Hawk	Buteo lineatus
BULIV	Rufous-winged Buzzard Eagle	Butastur liventer
BUMAG	Roadside Hawk	Buteo magnirostris
BUNIG	Fishing Buzzard	Busarellus nigricollis
BUNIT	Grey Hawk (Mexican Goshawk)	Buteo nitidus
BUORE	African Mountain Buzzard	Buteo oreophilus
BUPLA	Broad-winged Hawk	Buteo platypterus
BUPOE	Gurney's Buzzard	Buteo poecilochrous
BUPO1	Fraser's Eagle Owl	Bubo poensis
BUPOL	Red-backed Buzzard	Buteo polysoma
BUREG	Ferruginous Hawk	Buteo regalis

BURID	Ridgway's Hawk	Buteo ridgwayi
BURUF	Long-legged Buzzard	Buteo rufinus
BURU1	Grasshopper Buzzard Eagle	Butastur rufipennis
BURU2	Jackal Buzzard	Buteo rufofuscus
BUSOL	Hawaiian Hawk	Buteo solitarius
BUSWA	Swainson's Hawk	Buteo swainsonii
BUTEE	White-eyed Buzzard	Butastur teesa
BUURU	Great Black Hawk	Buteogallus urubitinga
BUVEN	Red-tailed Buzzard	Buteo ventralis
BUVIR	Great Horned Owl	Bubo virginianus
CAAUR	Turkey Vulture	Cathartes aura
CABUR	Yellow-headed Vulture	Cathartes burrovianus
CAMEL	Greater Yellow-headed Vulture	Cathartes melambrotus
CHRIO	African Swallow-tailed Kite	Chelictinia riocourii
CHUNC	Hook-billed Kite	Chondrohierax uncinatus
CIAER	Marsh Harrier	Circus aeruginosus
CIASS	Spotted Harrier	Circus assimilis
CIBUF	Long-winged Harrier	Circus buffoni
CICIN	Cinereous Harrier	Circus cinereus
CICI1	Smaller Banded Snake Eagle	Circaetus cinerascens
CICI2	Brown Harrier Eagle (Brown Snake Eagle)	Circaetus cinereus
CICYA	Marsh Hawk (Hen Harrier)	Circus cyaneus
CIFAS	Southern Banded Snake Eagle	Circaetus fasciolatus
CIGAL	Short-toed Eagle (Serpent Eagle)	Circaetus gallicus
CIMAC	Pallid Harrier	Circus macrourus
CIMAU	Black Harrier	Circus maurus
CIMEL	Pied Harrier	Circus melanoleucus
CIPYG	Montagu's Harrier	Circus pygargus
CIRAN	African Marsh Harrier	Circus ranivorus
COATR	Black Vulture	Coragyps atratus
COCOR	Common Raven	Corvus corax
COCRY	White-necked Raven	Corvus cryptoleucus
DAAME	Red-throated Caracara	Daptrius americanus
DAATE	Yellow-throated Caracara	Daptrius ater
DRSPE	Congo Serpent Eagle	Dryotriorchis spectabilis
ELCAE	Black-shouldered Kite	Elanus caeruleus
ELFOR	Swallow-tailed Kite	Elanoides forficatus
ELLEU	White-tailed Kite	Elanus leucurus
ELNOT	Australian Black-shouldered Kite	Elanus notatus
ELSCR	Letter-winged Kite	Elanus scriptus
ERRAD	Red Goshawk	Erythrotriorchis radiatus
EUAST	Madagascar Serpent Eagle	Eutriorchis astur
FAALO	Fox Kestrel	Falco alopex
FAARA	Seychelles Kestrel	Falco araea
FAARD	Grey Kestrel	Falco ardosiaceus
FABER	Brown Hawk	Falco berigora
FABIA	Lanner Falcon	Falco biarmicus
FACEN	Australian Kestrel (Nankeen Kestrel)	Falco cenchroides
FACHE	Saker Falcon	Falco cherrug

FACHI	Red-headed Falcon (Turumti)	Falco chicquera
FACOL	Merlin (Pigeon Hawk)	Falco columbarius
FACON	Sooty Falcon	Falco concolor
FACUV	African Hobby	Falco cuvieri
FADEI	Orange-breasted Falcon	Falco deiroleucus
FADIC	Dickinson's Kestrel	Falco dickinsoni
FAELE	Eleanora's Falcon	Falco eleanorae
FAFAS	Taita Falcon	Falco fasciinucha
FAFEM	Aplomado Falcon	Falco femoralis
FAHYP	Grey Falcon	Falco hypoleucos
FAJUG	Laggar Falcon	Falco juggar
FAKRE	Kleinschmidt's Falcon	Falco kreyenborgi
FALON	Little Falcon (Australian Hobby)	Falco longipennis
FAMEX	Prairie Falcon	Falco mexicanus
FAMOL	Moluccan Kestrel	Falco moluccensis
FANAU	Lesser Kestrel	Falco naumanni
FANEW	Madagascar Kestrel (Aldabra Kestrel)	Falco newtoni
FANOV	New Zealand Falcon	Falco novaezeelandiae
FAPER	Peregrine Falcon	Falco peregrinus
FAPUN	Mauritius Kestrel	Falco punctatus
FARUF	Bat Falcon	Falco rufigularis
FARUP	Greater Kestrel (White-eyed Kestrel)	Falco rupicoloides
FARUS	Gyrfalcon	Falco rusticolus
FASEV	Oriental Hobby	Falco severus
FASPA	American Kestrel	Falco sparverius
FASUB	European Hobby	Falco subbuteo
FASU1	Black Falcon	Falco subniger
FATIN	Common Kestrel	Falco tinnunculus
FAVES	Red-footed Falcon	Falco vespertinus
FAZON	Madagascar Kestrel	Falco zoniventris
GAMEL	Grey Eagle-buzzard	Geranoaetus melanoleucus
GASWA	Pearl Kite	Gampsonyx swainsonii
GECAE	Crane Hawk	Geranospiza caerulescens
GLCAS	Chestnut-backed Owlet	Glaucidium castaneum
GLGND	Pygmy Owl	Glaucidium gnoma
GLPAS	Eurasian Pygmy Owl	Glaucidium passerinum
GLTEP	Red-chested Owlet	Glaucidium tephronotum
GYAFR	African White-backed Vulture	Gyps africanus
GYANG	Vulturine Fish Eagle (Palm Nut Vulture)	Gypohierax angolensis
GYBAR	Lammergeier (Bearded Vulture)	Gypaetus barbatus
GYBEN	Indian White-backed Vulture	Gyps bengalensis
GYCAL	California Condor	Gymnogyps californianus
GYCOP	Cape Vulture	Gyps coprotheres
GYFUL	Griffon Vulture	Gyps fulvus
GYHIM	Himalayan Griffon	Gyps himalayensis

GYIND	Indian Griffon (Long-billed Vulture)	Gyps indicus
GYRUE	Ruppell's Griffon	Gyps rueppellii
HAALB	White-tailed Sea Eagle	Haliaeetus albicilla
HABID	Double-toothed Kite	Harpagus bidentatus
HACOR	Crowned Solitary Eagle	Harpyhaliaetus coronatus
HADIO	Rufous-thighed Kite	Hardagus diodon
HAHAR	Harpy Eagle	Harpia harpyja
HAIND	Brahminy Kite (White-headed Sea Eagle)	Haliastur indus
HALEU	Bald Eagle	Haliaeetus leucocephalus
HALE1	White-bellied Sea Eagle	Haliaeetus leucogaster
HALE2	Pallas' Sea Eagle	Haliaeetus leucoryphus
HAMEL	Black-breasted Buzzard Kite	Hamirostra melanosternon
HANOV	New Guinea Harpy Eagle	Harpyopsis novaeguineae
HAPEL	Steller's Sea Eagle	Haliaeetus pelagicus
HASAN	Sanford's Sea Eagle	Haliaeetus sanfordi
HASOL	Black Solitary Eagle	Harpyhaliaetus solitarius
HASPH	Whistling Hawk (Whistling Eagle)	Haliastur sphenurus
HAVOC	African Fish Eagle	Haliaeetus vocifer
HAVO1	Madagascar Fish Eagle	Haliaeetus vociferoides
HECAC	Laughing Falcon	Herpetotheres cachinnans
HEINF	Black Honey-Buzzard	Henicopernis infuscata
HELON	Long-tailed Honey-Buzzard	Henicopernis longicauda
HEMER	Savannah Hawk	Heterospizias meridionalis
HIDUB	Ayre's Hawk-eagle	Hieraaetus dubius
HIFAS	Bonelli's Eagle (African Hawk-eagle)	Hieraaetus fasciatus
HIKIE	Chestnut-bellied Hawk-eagle	Hieraaetus kienerii
HIMOR	Little Eagle	Hieraaetus morphnoides
HIPEN	Booted Eagle	Hieraaetus pennatus
ICICH	Grey-headed Fishing Eagle	Ichthyophaga ichthyaetus
ICMAL	Indian Black Eagle	Ictinaetus malayensis
ICMIS	Mississippi Kite	Ictinia misisippiensis
ICNAN	Lesser Fishing Eagle	Ichthyophaga nana
ICPLU	Plumbeous Kite	Ictinia plumbea
KAMON	Lizard Buzzard	Kaupifalco monogrammicus
LEALB	White Hawk	Leucopternis albicollis
LECAY	Grey-headed Kite (Cayenne Kite)	Leptodon cayanensis
LEKUH	White-browed Hawk	Leucopternis kuhli
LELAC	White-necked Hawk	Leucopternis lacernulata
LEMEL	Black-faced Hawk	Leucopternis melanops
LEOCC	Grey-backed Hawk	Leucopternis occidentalis
LEPLU	Plumbeous Hawk	Leucopternis plumbea
LEPOL	Mantled Hawk	Leucopternis polionota
LEPRI	Prince's Hawk (Barred Hawk)	Leucopternis princeps
LESCH	Slate-coloured Hawk	Leucopternis schistacea
LESEM	Semiplumbeous Hawk	Leucopternis semiplumbea
LOISU	Square-tailed Kite	Lophoictinia isura
LOOCC	Long-crested Eagle	Lophoaetus occipitalis

MECAN	Pale Chanting Goshawk	Melierax canorus
MEDOR	Doria's Goshawk	Megatriorchis doriae
MEGAB	Gabar Goshawk	Melierax gabar
MEMET	Dark Chanting Goshawk	Melierax metabates
MIBUC	Traylor's Forest Falcon	Micrastur buckleyi
MICAE	Red-legged Falconet	Microhierax caerulescens
MICHI	Yellow-headed Caracara	Milvago chimachima
MICHl	Chimango	Milvago chimango
MIERY	Philippine Falconet	Microhierax erythrogonys
MIFRI	Black-legged Falconet	Microhierax fringillarius
MILAT	Bornean Falconet	Microhierax latifrons
MIMEL	Pied Falconet	Microhierax melanoleucus
MIMIG	Black Kite (Common Kite) (Pariah Kite)	Milvus migrans
MIMIL	Red Kite	Milvus milvus
MIMIR	Slaty-backed Forest Falcon	Micrastur mirandollei
MIPLU	Schlater's Forest Falcon	Micrastur plumbeus
MIRUF	Barred Forest Falcon	Micrastur ruficollis
MISEM	Collared Forest Falcon	Micrastur semitorquatus
MIWHI	Elf Owl	Micrathene whitneyi
MOGUI	Guiana Crested Eagle	Morphnus guianensis
NEMON	Hooded Vulture	Necrosyrtes monachus
NEPER	Egyptian Vulture	Neophron percnopterus
NYSCA	Snowy Owl	Nyctea scandiaca
ORISI	Isidor's Eagle	Oroaetus isidori
OTASI	Screech Owl	Otus asio
OTFLA	Flammulated Owl	Otus flammeolus
OTGUR	Giant Scops Owl	Otus gurneyi
OTIRE	Sokoke Scops Owl	Otus ireneae
OTNUP	Puerto Rican Screech Owl	Otus nupides
OTPEM	Pemba Scops Owl	Otus pembaenis
OTSCO	Common Scops Owl	Otus scops
PAHAL	Osprey	Pandion haliaetus
PAUNI	Harris Hawk (Bay-winged Hawk)	Parabuteo unicinctus
PEAPI	Honey-Buzzard	Pernis apivorus
PECEL	Barred Honey-Buzzard	Pernis celebensis
PHALB	Darwin's Caracara (White-throated Caracara)	Phalcoboenus albogularis
PHAUS	Forster's Caracara	Phalcoboenus australis
PHCAR	Carunculated Caracara	Phalcoboenus carunculatus
PHMEG	Mountain Caracara	Phalcoboenus megalopterus
PIJEF	Philippine Monkey-eating Eagle	Pithecophaga jefferyi
POBEL	Martial Eagle	Polemaetus bellicosus
POINS	Fielden's Falconet	Polihierax insignis
POLUT	Guadalupe Caracara	Polyborus lutosus
POPLA	Common Caracara	Polyborus plancus
PORAD	Madagascar Harrier Hawk	Polyboroides radiatus
POSEM	African Pigmy Falcon	Polihierax semitorquatus
POTYP	African Harrier Hawk	Polyboroides typus

ROHAM	Slender-billed Kite	Rostrhamus hamatus
ROSOC	Snail Kite (Everglade Kite)	Rostrhamus sociabilis
SACAL	King Vulture (Indian Black Vulture)	Sarcogyps calvus
SAPAP	King Vulture	Sarcorhamphus papa
SASER	Secretary Bird	Sagittarius serpentarius
SCALB	Laughing Owl	Sceloglaux albifacies
SCPEL	Pel's Fishing Owl	Scotopelia peli
SPAFR	Cassin's Hawk-eagle	Spizaetus africanus
SPALB	Blyth's Hawk-eagle	Spizaetus alboniger
SPBAR	Java Hawk-eagle	Spizaetus bartelsi
SPCHE	Crested Serpent Eagle	Spilornis cheela
SPCIR	Spot-winged Falconet	Spiziapteryx circumcinctus
SPCIl	Changeable Hawk-eagle	Spizaetus cirrhatus
SPELG	Andaman Serpent Eagle	Spilornis elgini
SPHOL	Philippine Serpent Eagle	Spilornis holospilus
SPKLO	Nicobar Serpent Eagle	Spilornis klossi
SPLAN	Celebes Hawk-eagle	Spizaetus lanceolatus
SPMEL	Black and White Hawk-eagle	Spizastur melanoleucus
SPNAN	Wallace's Hawk-eagle	Spizaetus nanus
SPNIP	Mountain Hawk-eagle (Feather-toed Hawk-eagle)	Spizaetus nipalensis
SPORN	Ornate Hawk-eagle	Spizaetus ornatus
SPPHI	Philippine Hawk-eagle	Spizaetus philippensis
SPRUF	Celebes Serpent Eagle	Spilornis rufipectus
SPTYR	Black Hawk-eagle	Spizaetus tyrannus
STALU	Tawny Owl	Strix aluco
STCOR	Crowned Eagle	Stephanaoetus coronatus
STNEB	Great Grey Owl	Strix nebulosa
STOCC	Spotted Owl	Strix occidentalis
STURA	Ural Owl	Strix uralensis
STVAR	Barred Owl	Strix varia
SUULU	Hawk Owl	Surnia ulula
TEECA	Bateleur	Terathopius ecaudatus
TOTRA	Lappet-faced Vulture	Torgos tracheliotus
TROCC	White-headed Vulture	Trigonoceps occipitalis
TYALB	Barn Owl	Tyto alba
TYSOU	Madagascar Owl	Tyto soumagnei
URMAC	African Long-tailed Hawk	Urotriorchis macrourus
VUGRY	Andean Condor	Vultur gryphus

IV. KEYWORD DATA BASE

The Keyword Data Base matches the reference numbers of all items pertaining to a particular keyword with the corresponding reference numbers in the Raptor Data Base. Each keyword in the Keyword Data Base will have one or more (sometimes hundreds) of reference numbers (items) associated with it.

A list of keywords and their 6-letter codes can be found on pages 20 through 22.

The Keyword Data Base is referenced as "/RAPLIB/BPCA2DDB." It contains four elements:

E1:KEYWORD
E2:REF-NUM
E3:FLAG
E4:EXP-KEYWORD

Generally, the user need not be concerned with this data base except to be familiar with the list of keyword codes. These codes are used in conjunction with the program "BP010RIP" to produce reports by species, keyword, or combinations of the two.

United States Department of the Interior
Bureau of Land Management

ELEMENT DESCRIPTIONS

Title Keyword Data Base

Program Name /RAPLIB/BPCA2DDB Program No.

Elem. No.	Element Name	Type	Limits	Remarks
1	KEYWORD	T4	6 char	Keyword is an abbreviation of the keyword name (e.g., IMPFIR stands for IMPACTS--FIRE, IMPGRZ stands for IMPACTS--GRAZING, and LNDCON stands for LAND CONVERSION). (See pages 20 through 22.)
2	REF-NUM	T1	4 char	Reference number identifies the location of a specific item in the Raptor Data Base.
3	FLAG	T3	1 char	This element is inserted for a future use to identify important papers dealing with a particular keyword.
4	EXP-KEYWORD	T5	44 char	The keyword name for which the abbreviation stands (i.e., expanded keyword name).

ADVGRP	Advisory Groups
ADMCLO	Administrative Closure
ANIMDC*	Animal Damage Control
ARTFED	Artificial Feeding
ARTINC	Artificial Incubation (of Thin-shelled Eggs)
ASTRNS	Artificial Structures -- Artificial Nests
ASTRBK	Artificial Structures -- Baskets
ASTRBR	Artificial Structures -- Burrows
ASTRGN	Artificial Structures -- General
ASTRLG	Artificial Structures -- Ledges
ASTRNB	Artificial Structures -- Nestboxes
ASTRPF	Artificial Structures -- Platforms
ATKHUM	Attacks on Humans
BEHMOD	Behavior Modification
✔BUFZON	Buffer Zones -- General
✔CABRMG*	Captive Breeding -- Management
✔COMPSA	Compensation
CRIHAB*	Critical Habitat
CRSFOS	Cross-fostering
EASMNT	Easements
ECONOM*	Economics
EGMNDC	Egg Manipulations -- Double Clutching
EGMNGN	Egg Manipulations -- General
EGMNIL	Egg Manipulations -- Indeterminate Laying
EGMNTR	Egg Manipulations -- Transfers (Including Augmentation)
✔ELCTRO	Electrocution
ENDACT*	Endangered Species Act
✔ENVIMP*	Environmental Impact Assessment
✔FLCNRY*	Falconry
✔FOLKLR	Folklore/Symbolism
FOSTER	Fostering
HABPRO	Habitat Protection -- General
HABITU*	Habituation
HACKNG	Hacking
✔HEVMET*	Heavy Metals
HISSIT	Historical Sites
IMPAGR	Impacts -- Agriculture
IMPAIR	Impacts -- Aircraft
IMPDAM	Impacts -- Dams and Reservoir Management
IMPDIS	Impacts -- Diseases and Parasites
IMPFEN	Impacts -- Fences
IMPFIR	Impacts -- Fire
IMPFOD*	Impacts -- Food Supply
IMPGEN	Impacts -- General
IMPGRZ	Impacts -- Grazing
✔IMPHAD	Impacts -- Habitat Destruction
✔IMPHUD	Impacts -- Human Disturbance -- General

✔IMPLGD	Impacts -- Logging -- Documented
✔IMPLGP	Impacts -- Logging -- Potential
IMPMIL	Impacts -- Military
✔IMPMIN	Impacts -- Mining (including Oil & Gas Development)
✔IMPMIS	Impacts -- Miscellaneous
✔IMPMOR*	Impacts -- Mortality in General
IMPNOI	Impacts -- Noise
IMPPER	Impacts -- Persecution
IMPPHO	Impacts -- Photography
IMPPIP	Impacts -- Pipelines
IMPPOI	Impacts -- Poisoning
✔IMPPOW	Impacts -- Power Lines (see also Electrocution)
✔IMPPRD	Impacts -- Predation
✔IMPRCB	Impacts -- Recreation -- Boating
✔IMPRCG	Impacts -- Recreation -- General
✔IMPRCH	Impacts -- Recreation -- Hiking and Camping
✔IMPRCI	Impacts -- Recreation -- Hunting and Fishing
✔IMPRCO	Impacts -- Recreation -- Off-road Vehicles
✔IMPRCR	Impacts -- Recreation -- Rock Climbing
✔IMPRCS*	Impacts -- Recreation -- Snowmobiling
IMPRES	Impacts -- Research
IMPROD	Impacts -- Roads and Railroads
IMPSHO	Impacts -- Shooting
IMPTRP	Impacts -- Trapping
✔IMPURB	Impacts -- Urbanization
IMPWEA	Impacts -- Weather
IMTING*	Imprinting
INDNUS*	Indian Use
INDTRS	Indicators
LNDACQ	Land Acquisition
LNDCON*	Land Conversion
LAWENF*	Law Enforcement
LEGREG*	Legislation and Regulations
LISSTS*	Listing Status
✔MANGEN	Management -- General
MANPUT	Management -- Private Lands
✔MGRAGR	Management Recommendations -- Agriculture
MGRAIR	Management Recommendations -- Aircraft
MGRBFZ	Management Recommendations -- Buffer Zones
MGRDAM	Management Recommendations -- Dams and Reservoirs
MGRDIS	Management Recommendations -- Diseases and Parasites
✔MGRFEN	Management Recommendations -- Fences
MGRFIR	Management Recommendations -- Fire
MGRFOD*	Management Recommendations -- Food Supply
MGRGEN	Management Recommendations -- General
MGRGRZ	Management Recommendations -- Grazing
MGRHAI	Management Recommendations -- Habitat Improvement
MGRHAP	Management Recommendations -- Habitat Protection
MGRHUD	Management Recommendations -- Human Disturbance
MGRLOG	Management Recommendations -- Logging
✔MGRMIL	Management Recommendations -- Military
MGRMIN	Management Recommendations -- Mining (Including Oil and Gas Development)

MGRMIS	Management Recommendations -- Miscellaneous
MGRNEI	Management Recommendations -- Nest Site Improvement
MGRNEP	Management Recommendations -- Nest Site Protection
✔MGRNOI	Management Recommendations -- Noise
MGRPER	Management Recommendations -- Persecution
MGRPES	Management Recommendations -- Pesticides
MGRPHO	Management Recommendations -- Photography
MGRPIP	Management Recommendations -- Pipelines
MGRPLN	Management Recommendations -- Planning & Coordination in General
MGRPOI	Management Recommendations -- Poisoning
MGRPOW	Management Recommendations -- Power Lines (see also Electrocution)
✔MGRPRD	Management Recommendations -- Predation
MGRPUB	Management Recommendations -- Public Observation
MGRRCB	Management Recommendations -- Recreation -- Boating
MGRRCG	Management Recommendations -- Recreation -- General
MGRRCH	Management Recommendations -- Recreation -- Hiking, Camping, Skiing
MGRRCI	Management Recommendations -- Recreation -- Hunting and Fishing
MGRRCO	Management Recommendations -- Recreation -- Off-road Vehicle
MGRRCR	Management Recommendations -- Recreation -- Rock Climbing
MGRRCS*	Management Recommendations -- Recreation -- Snowmobiling
MGRRES	Management Recommendations -- Research
MGRROD	Management Recommendations -- Roads and Railroads
MGRSHO	Management Recommendations -- Shooting
MGRTRP	Management Recommendations -- Trapping
✔MGRURB	Management Recommendations -- Urbanization
✔MGRWEA	Management Recommendations -- Weather
MCRSIT	Man-created Situations
MMNSBR	Man-made Nest Sites -- Bridges
MMNSBU	Man-made Nest Sites -- Buildings
MMNSCM	Man-made Nest Sites -- Channel Markers, Duck Blinds, etc.
MMNSGN	Man-made Nest Sites -- General
MMNSMS	Man-made Nest Sites -- Miscellaneous
MMNSQY	Man-made Nest Sites -- Quarries
MMNSUS	Man-made Nest Sites -- Utility Structures
NSCONF	Nest Site Confidentiality
PERMAN	Perch Management
PESTIC*	Pesticides
PHILOP*	Philopatry
POPREC	Population Recovery
✔PUBATT	Public Attitudes
✔PUBEDU	Public Education
✔RECPLN	Recovery Plans (Teams)
✔RGEGEN	Refuges -- General and Miscellaneous
✔RGEMGA	Refuges -- Management Areas
✔RGEMIL	Refuges -- Military Lands
✔RGENAP	Refuges -- National Parks
✔RGENAR	Refuges -- National Wildlife Refuges
✔RGENRA	Refuges -- Natural Areas
✔RGESAN	Refuges -- Sanctuaries
✔RGEWAR	Refuges -- Wilderness Areas

✔REHABN*	Rehabilitation
✔RENTRO	Reintroduction -- General
✔REPMAT	Replacement of Mates
✔RODCON	Rodent Control by Raptors
✔SHTSTP	Short-stopping
✔SITTEN	Site Tenacity
✔SNGMGT*	Snag Management
✔SPSTAT*	Species Status
✔SURVEI	Surveillance
✔SURVRT	Survival Rates
✔TRNSLO	Translocation
✔ZOOGAR*	Zoological Gardens

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* An asterisk indicates that a particular keyword is weakly represented in the RMIS, primarily because that particular subject has an extensive literature of its own (e.g., pesticides, falconry, rehabilitation, etc.). To date, emphasis has been placed on raptor management and human impacts on raptors. This asterisk is not part of the keyword abbreviation for computer purposes.

✔A check mark indicates that the reference number list for that keyword was not loaded into the computer as of October 1, 1982. Loading of the remaining keywords is receiving a high priority in RMIS development. By the time you use this Users' Guide many of the remaining keyword lists should be loaded, so go ahead and try them. If you have questions, contact Richard R. Olendorff.

V. SYSTEM OPERATION

Persons desiring access to RMIS need to have access to a remote terminal that can communicate with the BLM's Honeywell 66/80 in Denver, Colorado. They also need a valid User Master Catalog (UMC) and a charge code with REX2 permissions. For more information on these permissions, the log-on procedure and access to REX2, BLM employees should contact their local ADP coordinators.

RMIS consists of three REX2 data bases (see Sections III through V of this report). Persons familiar with REX2 can use all query commands available in the REX2 software system. Details on REX2 operation are available in the "REX Reference Manual" published by Tekton Software Inc., Boulder, Colorado. Persons unfamiliar with REX can still use RMIS by using the abbreviated commands developed in this Users' Guide.

Obtaining reports which retrieve information just from the Raptor Data Base (i.e., reports requested by author or reference number(s)) involves the following steps:

1. Signing on the terminal (see below, this page);

2. Entering the proper charge codes and passwords (see page 26);

3. Entering the REX2 subsystem (see page 26);

4. Calling up the Raptor Data Base (see page 26);

5. Choosing the type of report desired (see page 26); and

6. Following the REX2 prompts for each type of report to produce the desired results (see pages 29-38, Examples of Reports, for the exact prompts and how to respond to them).

If reports are requested which involve the Species Data Base and/or Keyword Data Base (i.e., any report requested by species, keyword, or both), the operator must take the following steps:

1. Sign on the terminal (see page 23);

2. Enter the proper charge codes and passwords (see page 26);

3. Use the command CRUN to execute the program CA700/BP010RIP (see page 27); and

4. Follow the system prompts to produce the desired results (see page 40, Examples of Reports, for the exact prompts and how to respond to them).

Sign On Procedures

**NOTE The following sign-on procedures are those used in the Bureau's California State Office. Contact the nearest BLM ADP Coordinator for other appropriate sign-on procedures.

1. CALLING UP THE COMPUTER

   a. Turn on power to terminal.

   b. Dial your local system access number (_____) and wait for a high-pitched tone.

   c. Press button and hang up the phone.

2. SIGNING ONTO THE COMPUTER

   a. Ignore any "beeps" that you hear from the terminal.

   b. Press carriage return.

   c. The following prompt will be displayed:

```
ENTER
     0) DISCONNECT
     1) FNP-0
     2) FNP-1
     3) FNP-2
```

   d. You have 20 seconds to respond. Type in a "1" after the prompt, then press carriage return (do not type in the quotation marks; just the numeral).

   e. If the word "CONNECTED" is printed, follow the steps outlined on page 26 to complete the sign-on process.

   f. If you receive the following message:

```
ALL PORTS UNAVAILABLE
ENTER
    0) DISCONNECT
    1) RE-ENTER RESOURCE NUMBER
    2) QUEUE
```

Type in a "1", then press carriage return. Return to point (c) and respond with a "2" or "3". If you receive the "ALL PORTS UNAVAILABLE" message after trying 1, 2, and 3, enter a 0 and press carriage return. You will be disconnected from the computer. Try signing on at a later time.

General Operating Instructions

1. To read the Raptor Data Base, use the procedure beginning on page 26.

2. To obtain reports and information, respond to each REX prompt with an appropriate command. The REX prompt is "ENTER NEXT COMMAND." To respond to a prompt: 1. type in your command, and
   2. press the carriage return.

3. To obtain a list of available reports, enter the following in response to the REX prompt: OPTIONS.

4. After any report or information display is completed, the REX prompt "ENTER NEXT COMMAND" will appear. You may then choose another report or end the REX program.

5. You can end the REX program at any time by responding to the REX prompt with "END" (i.e., ENTER NEXT COMMAND: END).

6. Many of the commands will produce additional prompts. These prompts will be explained whenever they appear.

7. The REX2 subsystem used by the RMIS uses the following terms:

   ITEM: one complete record for a particular article (includes reference number, author(s), title, citation, and annotation).

   ELEMENT: a given line in an item record. There are 25 elements for each item. For a description of the elements, see pages 6 through 8 of this users' guide.

Use of the "Operating Instructions" Tables

This table format appears several times throughout this guide. See page 26 for an example.

Description of the 5 columns:

1. Subsys.: Indicates which subsystem (master program) is in control.

2. Prompt: Output from the subsystem indicating that you are to type in something.

3. User Response: Indicates what you are supposed to type in.

4. Remarks: Describes what action is initiated by the user response shown.

5. Pg. Ref.: Indicates the page in this users' guide on which you may find an example or description of the particular step.

   For example: On page 26 on the 8th "user response," the REX2 subsystem will issue the prompt "ENTER NEXT COMMAND:." You are to type in "RDB:CA700/RAPLIB/BPCA1DDB," which will initiate reading of the Raptor Data Base.

OPERATING INSTRUCTIONS

Operation Sign-on Procedure and List of Commands

Program Name /RAPLIB/BPCA1DDB Program No. _____

Subsys.	Prompt	User Response	Remarks	Pg. Ref.
none	Enter 0)DISCON 1)FNP-0 2)FNP-1 3)FNP-2	1	Choose FNP-0 (Front End Processor 0).	
none	CONNECTED USER ID-	type in User ID; charge code	Enter _ _ _ _ _ ; _ _ _ _ 4-character non-REX charge code.	
none	PASSWORD ********	type in password	Enter your User ID password.	
	CHARGE PASSWORD ?	type in charge code password	Enter 6-character password for charge code.	
system	*NOOZ		Sign-on process now complete.	
system	*	REX2	Enter the REX2 subsystem.	
	CHARGE CODE ?	type in REX2 charge code	Enter 4-character REX2 charge code.	
	PASSWORD ?	type in code password	Enter 6-character password for REX charge code.	
REX2	ENC	RDB:CA700/RAPLIB /BPCA1DDB	Raptor Data Base.	
	ENC	OPTIONS	Allows the user a choice of reports.	29
	ENC	REF-NUM	Prints a report of items selected by reference numbers.	29

FOOTNOTE

ENC=Enter Next Command

OPERATING INSTRUCTIONS

Operation Sign-on Procedure and List of Commands

Program Name /RAPLIB/BPCA1DDB Program No. _____

Subsys.	Prompt	User Response	Remarks	Pg. Ref.
	ENC	AUTHOR	Prints a report of items selected by author.	32
	ENC	END	To exit the REX2 subsystem.	
system	*	CRUN CA700/ BP010RIP,R	This program gives the user a choice of reports by species, keywords or both. Prompts are directed to the terminal for user choice.	40
system	*	LIST REFNUM	REFNUM is a report of items requested by species, keywords, or both.	41
system	*	BYE	To sign off the computer.	

FOOTNOTE

ENC=Enter Next Command

EXAMPLES OF REPORTS

The following pages show examples of reports available to users. The underlined characters, words, or phrases on the introductory page of each report indicate user responses necessary to execute the appropriate computer programs (see operating instructions on pages 27 and 28).

Example 1 produces a report of 8 items selected by reference numbers.

Example 2 produces a report of 7 items selected by an author's last name.

Example 3 produces a report consisting of references selected by keywords only. The first page of the report includes a listing of the keyword(s) requested. The second page gives information on how the items will be sorted by the computer.

Example 4 produces a report consisting of references selected by species only. The first page gives a list of the species requested and a note about what is included in the bibliography. The second page gives information on how the items will be sorted by the computer.

Example 5 produces a report consisting of references selected by both species and keyword(s). The first and second pages include information on species and keyword(s) requested, what is included in the bibliography, and how the computer sorts the output.

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REX 2.1   *   Bureau of Land Management   *  09/30/82   *   1:28 PM   *  Page 1

Enter next command: RDB:CA700/RAPLIB/BPCA1DDB
Read Data Base : CA700/RAPLIB/BPCA1DDB.REX

Title: RAPTOR MANAGEMENT INFORMATION SYSTEM
Author: PETE PEPITO
Created 06/29/82 11:33 AM by PETE
Last modified 09/30/82 11:32 AM by RAMONA

Number of ITEMS in Data Base: 1,782 total, 0 hidden, 1,782 net.

Data Base totals 637,254 words. 25 data elements and 36 abbreviations have been
  defined.
78 modifications have been made to this Data Base.

Playback OFF

ENTER FIRST AND LAST NAME AND AGENCY ACRONYM (IF APPROPIATE)
OF PERSON FOR WHOM THE REPORTS IS BEING REQUESTED (E.G., JOHN DOE(FWS)).
?? RUTH LEWIS

Enter next command: OPTIONS
                ***LIST OF AVAILABLE REPORTS***

      REF-NUM.........PRINTS A REPORT OF SELECTED ITEMS CHOSEN BY
                      REFERENCE NUMBERS.

      AUTHOR..........PRINTS A REPORT OF SELECTED ITEMS
                      CHOSEN BY AUTHOR.

      **** THE ABOVE COMMANDS MUST BE ENTERED IN THE REX2 ****
      **** SUBSYSTEM AFTER A 'QDB:', 'RDB:' OR 'UDB:'    ****
      **** OF CA700/RAPLIB/BPCA1DDB.                          ****

      CRUN CA700/BP010RIP,R....PRINTS A REPORT BY SPECIES, KEYWORDS,
                      OR A COMBINATION OF BOTH.

      ****  THIS COMMAND CANNOT BE EXECUTED IN THE REX2 SUBSYSTEM. ****


Enter next command: REF-NUM

 ENTER REFERENCE NUMBERS SEPARATED BY SEMICOLONS.

 A MAXIMUM OF 32 NUMBERS ARE ALLOWED.

 IF MORE NUMBERS ARE NEEDED RE-ENTER 'REF-NUM' TO THE REX PROMPT.

ENTER REFERENCE NUMBERS 5005;5006;5018;5790;6192;5051;5015;5012

QUERY RESPONSE: 8 out of 1,782 ITEMS, or 0.45 %
```

BY SELECTED REFERENCE NUMBERS

RAPTOR MANAGEMENT INFORMATION SYSTEM
COMPILED BY RICHARD R. OLENDORFF
U.S. BUREAU OF LAND MANAGEMENT
2800 COTTAGE WAY
SACRAMENTO, CA 95825
(916) 484-4701
FTS 468-4701

ADAMS, J.K., AND V.E. SCOTT. 1979. 6192
TIMBER HARVEST MODIFICATIONS AROUND AN ACTIVE OSPREY NEST.
WESTERN BIRDS 10: 157-158.

ADKINS, J. 1977. 5005
SKAGIT RIVER BALD EAGLE NATURAL AREA MANAGEMENT PLAN.
WASHINGTON DEPARTMENT OF GAME, OLYMPIA. 6 PP.

SPECIFIC USE RESTRICTIONS ARE GIVEN FOR THE SKAGIT RIVER BALD EAGLE NATURAL AREA. INCLUDED ARE RECOMMENDED SIGNS, RESTRICTIONS ON RIVER USE BY RAFTERS, DRIFTERS, AND FISHERMEN, LAND-USE RESTRICTIONS FOR FISHERMEN, HUNTERS, TRAPPERS, HIKERS, ETC., RULES FOR PUBLIC VIEWING, AND A SCHEME FOR MONITORING PUBLIC USE.

AIROLA, D.A. 1980. 5006
OBSERVATIONS OF A GROUNDED YOUNG BALD EAGLE AT LAKE ALMANOR, PLUMAS COUNTY, [CALIFORNIA], 1980.
UNPUBL. REP. U.S. FOREST SERVICE, CHESTER, CALIFORNIA. 4 PP.

FIELD NOTES CONCERNING THE APPARENT SURVIVAL OF A GROUNDED FLEDGLING BALD EAGLE. RECOMMENDS A WATCH-AND-SEE STRATEGY FOR SUCH CASES RATHER THAN REMOVAL OF THE BIRD FROM THE WILD AND SUBSEQUENT RELEASE.

ALASKA MAGAZINE. 1972. 5790
WE'RE LOSING OUR HAWKS AND OWLS.
MARCH 1, 1972. P. 41.

VERY BRIEFLY MENTIONS SEVERAL OF THE MORE SERIOUS FACTORS WHICH CAUSE DECLINES OF RAPTOR POPULATIONS.

ALLEN, G.T. 1979. 5012
ASSESSMENT OF POTENTIAL CONFLICTS BETWEEN NESTING RAPTORS AND HUMAN ACTIVITIES IN THE LONG PINES AREA OF SOUTHEASTERN MONTANA--WITH SPECIAL EMPHASIS ON URANIUM DEVELOPMENT.
FINAL PROJECT REPORT TO THE MONTANA DEPARTMENT OF FISH AND GAME. ALSO: MASTER'S THESIS. WASHINGTON STATE UNIVERSITY, PULLMAN. 109 PP.

AMERICAN ORNITHOLOGISTS' UNION, 1980. 5015
[RESOLUTION CONCERNING CALIFORNIA CONDOR RESEARCH AND CAPTIVE BREEDING PROGRAM].
1 P.

SUPPORTS THE CALIFORNIA CONDOR RESEARCH AND CAPTIVE BREEDING PROGRAM OF THE U.S. FISH AND WILDLIFE SERVICE AND THE NATIONAL AUDUBON SOCIETY.

ANCHORAGE SUNDAY TIMES, 1975. 5018
NEAR EXTINCT FALCONS MAY SURVIVE.
NEWSPAPER ARTICLE, DECEMBER 28, 1975, P. G-7.

BECKER, D.M. 1978. 5051
SURVEY OF BREEDING RAPTORS ON AND ADJACENT TO CUSTER NATIONAL FOREST LANDS IN CARTER COUNTY, MONTANA.
UNPUBL. REP. U.S. FOREST SERVICE, BILLINGS, MONTANA. 82 PP.

BY AUTHOR

Enter next command: AUTHOR

THE AUTHORS' NAME MUST BE ENCLOSED IN PARENTHESIS (AUTHOR).

ONLY ONE AUTHOR CAN BE ENTERED AT A TIME.

ENTER AUTHOR (ALLEN)

QUERY RESPONSE: 11 out of 1,718 ITEMS, or 0.64 %

RAPTOR MANAGEMENT INFORMATION SYSTEM
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U.S. BUREAU OF LAND MANAGEMENT
2800 COTTAGE WAY
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(916) 484-4701
FTS 468-4701

ALLEN, B.A. 1979. 5008
DETERMINATION OF STATUS AND MANAGEMENT OF THE GOLDEN EAGLE.
UNPUBL. REP. NEW YORK DEPARTMENT OF ENVIRONMENTAL CONSERVATION, DIVISION OF FISH AND WILDLIFE, ALBANY. 4 PP.

A SINGLE IMMATURE GOLDEN EAGLE WAS ELECTROCUTED IN NIAGARA COUNTY, NEW YORK, IN 1979.

ALLEN, B.A. 1979. 5009
FACTORS AFFECTING REPRODUCTION OF OSPREYS.
UNPUBL. REP. NEW YORK DEPARTMENT OF ENVIRONMENTAL CONSERVATION, DIVISION OF FISH AND WILDLIFE, ALBANY. 4 PP.

ALLEN, B.A. 1979. 5010
HACKING AND OBSERVATIONS OF FLEDGED PEREGRINE FALCONS.
UNPUBL. REP. NEW YORK DEPARTMENT OF ENVIRONMENTAL CONSERVATION, DIVISION OF FISH AND WILDLIFE, ALBANY. 5 PP.

ALLEN, B.A. 1980. 5011
RELEASE OF YOUNG PEREGRINE FALCONS.
UNPUBL. REP. NEW YORK DEPARTMENT OF ENVIRONMENTAL CONSERVATION, DIVISION OF FISH AND WILFLIFE, ALBANY. 5 PP.

ALLEN, G.T. 1979. 5012
ASSESSMENT OF POTENTIAL CONFLICTS BETWEEN NESTING RAPTORS AND HUMAN ACTIVITIES IN THE LONG PINES AREA OF SOUTHEASTERN MONTANA--WITH SPECIAL EMPHASIS ON URANIUM DEVELOPMENT.
FINAL PROJECT REPORT TO THE MONTANA DEPARTMENT OF FISH AND GAME, ALSO; MASTER'S THESIS, WASHINGTON STATE UNIVERSITY, PULLMAN. 109 PP.

ALLEN, M.L. 1979. 6584
HEMLOCK LAKE BALD EAGLE NEST SITE, SUMMARY--ACTIVITY AND MANIPULATION 1979.
UNPUBL. REP. SUBMITTED TO THE NEW YORK DEPARTMENT OF ENVIRONMENTAL CONSERVATION, DIVISION OF FISH AND WILDLIFE, ALBANY. 4 PP.

ALLEN, M.L., AND P. NYE. 1978. 5013
MANIPULATION AT NEW YORK'S LAST REMAINING ACTIVE BALD EAGLE NEST.
UNPUBL. REP. NEW YORK DEPARTMENT OF ENVIRONMENTAL CONSERVATION, DIVISION OF FISH AND WILDLIFE, ALBANY. 10 PP.

KNIGHT, R.L., G.T. ALLEN, M.V. STALMASTER, AND C.W. SERVHEEN (EDS.). 1980. 6624
PROCEEDINGS OF THE WASHINGTON BALD EAGLE SYMPOSIUM.
NATURE CONSERVANCY, SEATTLE, WASHINGTON. 254 PP.

KNIGHT, R.L., R.C. FRIESZ, G.T. ALLEN, AND P.J. RANDOLPH. 1981. 6129
SUMMARY OF THE MID-WINTER BALD EAGLE SURVEY IN WASHINGTON 1981.
WASHINGTON DEPARTMENT OF GAME, OLYMPIA. 74 PP.

NYE, P.E., AND B.A. ALLEN. 1979. 6173
ACQUISITION OF YOUNG PEREGRINE FALCONS.
UNPUBL. REP. NEW YORK DEPARTMENT OF ENVIRONMENTAL CONSERVATION, DIVISION OF
FISH AND WILDLIFE, ALBANY. 2 PP.

SCHEIBEL, M., AND B.A. ALLEN. 1980. 6308
STATUS, RESEARCH AND MANAGEMENT OF LONG ISLAND OSPREYS.
UNPUBL. REP. NEW YORK DEPARTMENT OF ENVIRONMENTAL CONSERVATION, DIVISION OF
FISH AND WILDLIFE, ALBANY. 5 PP.

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Enter next command: END

 Time 11:54 AM 554 sec elapsed
Processor: 16.517 sec elapsed, 16.517 sec total.

END REX.
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/BP010RIP
ENTER FIRST AND LAST NAME AND AGENCY ACRONYM (IF APPROPIATE)
OF PERSON FOR WHOM THE REPORTS IS BEING REQUESTED (E.G., JOHN DOE(FWS)).
?? RICHARD OLENDORFF

ENTER USERS NAME RAAMONA SHINE

DO YOU WANT REFERENCE NUMBERS BY KEYWORDS, SPECIES, OR BOTH

ENTER KEY, SPEC, 'OR' BOTH KEY


ENTER SPECIES OR KEYWORDS SEPARATED BY A SEMICOLON ASTRBK;ASTRLG

END OF RAPUPD

########################   REX CHARGE CODE   ########################

ENTER REX CHARGE CODE [redacted]


######   REX PASSWORD   ######

ENTER REX PASSWORD [redacted]

 ---  HANG ON THE COMPUTER WILL DO THE REST OF THE WORK
END OF KEYPRINT

DUE TO THE SIZE OF THE RAPTOR DATA BASE IT WILL TAKE
APPROXIMATELY 10 TO 15 MINUTES TO SELECT THE REFERENCE
NUMBERS AND PRINT YOUR REPORT. PLEASE BE PATIENT.

ENTER FIRST AND LAST NAME AND AGENCY ACRONYM (IF APPROPIATE)
OF PERSON FOR WHOM THE REPORTS IS BEING REQUESTED (E.G., JOHN DOE(FWS)).
?? RICHARD OLENDORFF
END OF RAPEXEC
-LIST REFNUM

DUE TO THE SIZE OF THE RAPTOR DATA BASE IT WILL TAKE
APPROXIMATELY 10 TO 15 MINUTES TO SELECT THE REFERENCE
NUMBERS AND PRINT YOUR REPORT. PLEASE BE PATIENT.

CHARGE CODE?
[redacted]SSWORD?

REX 2.1   *   Bureau of Land Management   *  09/29/82   *  10:51 AM   *  Page 1

Enter next command:
Read Auxiliary Input : KEYSPEC
ENTER FIRST AND LAST NAME AND AGENCY ACRONYM (IF APPROPIATE)
OF PERSON FOR WHOM THE REPORTS IS BEING REQUESTED (E.G., JOHN DOE(FWS)).
Standard Print OFF

QUERY RESPONSE: 19 out of 1,782 ITEMS, or 1.07 %
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BY KEYWORDS

RAPTOR MANAGEMENT INFORMATION SYSTEM
COMPILED BY RICHARD R. OLENDORFF
U.S. BUREAU OF LAND MANAGEMENT
2800 COTTAGE WAY
SACRAMENTO, CA 95825
(916) 484-4701
FTS 468-4701

KEYWORDS REQUESTED: ARTIFICIAL STRUCTURES--BASKETS, ARTIFICIAL STRUCTURES--LEDGES

THIS REPORT CONTAINS SELECTED ITEMS THROUGH REFERENCE NUMBER 6254

There are several idiosyncrasies of the computer sorting system of which you should be aware. These are as follows:

1. Special characters (e.g., brackets and parentheses) around authors' initials, where they were not included in the actual article, cause the paper to be alphabetized ahead of all other papers by the same first author. Brackets around uncertain dates and 'No Date' also cause the papers to sort out first (e.g., Becker, D.M. [1982] comes before Becker, D.M. 1977).

2. If an author's name is two words, it will come before a name which is one word beginning with the same sequence of letters (e.g., Van Vuren will come before Vancamp).

3. Anonymous papers are listed according to Journal name, originating agency, or other appropriate designation.

4. The program sorts by first author (last name first and then initials), then by second author's initials, second author's last name, and so on. Eventually the data base will be edited to place all authors' last names ahead of their initials to ensure proper sorting. For now, papers with multiple authors may be slightly out of place.

5. All special punctuations associated with foreign alphabets are omitted in the computer program. These can be obtained by phone or letter from Richard R. (Butch) Olendorff.

6. If an item is edited by listed author, it will appear before items actually authored by that person (e.g., Borneman, J.C. (ed). 1981. comes before Borneman, J.C. 1966.).

7. If there is an apostrophe in a person's name, the reference will be found following all other references with the same sequence of letters preceding the apostrophe (e.g., O'Brien is at the end of the 'O's').

8. All articles (a, and, the) at the beginning of titles are deleted.

9. All authors' first and middle names have been reduced to initials.

If you have questions about the RMIS, do not hesitate to write Richard R. (Butch) Olendorff, U.S. Bureau of Land Management, 2800 Cottage Way, Sacramento, California 95825 or phone (916) 484-4701 or FTS-468-4701.

ARIZONA REPUBLIC. 1976. 5034
60-FOOT TOWERS FOR BIRDS OF PREY BEING CREATED ALONG VERDE RIVER.
NEWSPAPER ARTICLE. DECEMBER 24, 1976. P. A-3.

OF INTEREST HERE IS THE DESIGN OF THE 60-FOOT TOWERS ERECTED AS RAPTOR PERCHES ALONG THE VERDE RIVER. THEY ARE VERY SIMILAR TO ELECTRIC UTILITY POLES.

BOHM, R.T. 1977. 5092
ARTIFICIAL NEST PLATFORMS FOR RAPTORS.
RAPTOR RES. 11: 97-99.

DESCRIBES THE CONSTRUCTION AND PLACEMENT OF WIRE BASKETS IN TREES FOR NESTING GREAT HORNED OWLS AND RED-TAILED HAWKS IN CENTRAL MINNESOTA. FACTORS THAT MAY AFFECT THE SELECTION OF ARTIFICIAL NESTS ARE DISCUSSED.

BOHM, R.T. 1980. 5093
NEST SITE SELECTION AND PRODUCTIVITY OF GREAT HORNED OWLS IN CENTRAL MINNESOTA.
RAPTOR RES. 14: 1-6.

FIFTY WIRE BASKETS WERE AVAILABLE IN 28 PROBABLE GREAT HORNED OWL TERRITORIES IN 1977. SIXTEEN PAIRS OF OWLS USED THE STRUCTURES THAT YEAR. SEVENTEEN OTHER PAIRS USED NATURAL NESTS ON THE STUDY AREA. FIFTY PERCENT OF THE WIRE BASKET NESTS WERE SUCCESSFUL, WHILE YOUNG OWLS FLEDGED FROM 65 PERCENT OF THE NATURAL NESTS. LOWER SUCCESS IN ARTIFICIAL BASKETS WAS ATTRIBUTED TO ACCESSIBILITY OF THOSE NESTS (LOCATED MORE ON THE EDGES OF THAN DEEP WITHIN WOODLOTS).

CRAIG, G.R., AND W.C. ANDERSON. 1979. 5834
FERRUGINOUS HAWK NESTING STUDIES.
IN: COLORADO DIVISION OF WILDLIFE, GAME RESEARCH REPORT, JANUARY, 1979. DENVER, COLORADO. PP. 111-120.

FERRUGINOUS HAWK PRODUCTIVITY WAS OBTAINED FROM TWO STUDY AREAS IN SOUTHEAST COLORADO AND ANOTHER IN NORTHEAST COLORADO. NESTS ON ONE OF THE AREAS IN SOUTHEAST COLORADO WERE MANIPULATED WHERE NECESSARY TO IMPROVE STABILITY OR SUITABILITY AS NEST SITES. APPROXIMATELY 2.03 YOUNG WERE PRODUCED PER NESTING ATTEMPT ON ALL STUDY AREAS. THE MANAGED AREA, HOWEVER, PRODUCED 3.1 YOUNG PER NESTING ATTEMPT, WHILE THE UNMANAGED AREAS PRODUCED 1.8 AND 1.6 YOUNG PER NESTING ATTEMPT. THE PRIMARY CAUSE OF NESTING FAILURE IS HIGH WINDS WHICH CAPSIZE THE BULKY NEST STRUCTURES. (AUTHORS' ABSTRACT.)

BOTY, H.A. 1974. 5281
GREAT HORNED OWLS AND DUCK NEST BASKETS.
NORTH DAKOTA OUTDOORS 36(9): 19.

UP TO 155 DUCK NEST BASKETS WERE MAINTAINED ANNUALLY (1966-73). IN 1973 TWO BASKETS WERE OCCUPIED BY GREAT HORNED OWLS, EACH PAIR PRODUCING 2 YOUNG. THIS REPRESENTED A SWITCH OF HABITAT PREFERENCES BY THE OWLS WHICH NORMALLY NESTED IN WOODED AREAS RATHER THAN OPEN MARSHY AREAS.

DUNSTAN, T.C. 1970. 5833
POST-FLEDGING ACTIVITIES OF JUVENILE GREAT HORNED OWLS AS DETERMINED BY RADIO-TELEMETRY.
PH.D. DISSERTATION. UNIVERSITY OF SOUTH DAKOTA, VERMILLION. 110 P.

FIELDS THAT HAD BEEN RECENTLY DISKED, CUT, OR HARVESTED WERE MOST OFTEN HUNTED OVER. WOODED AREAS WERE HUNTED IN WHEN OTHER AREAS IN THE TERRITORY WERE GROWN OVER WITH CROPS OR LEFT FALLOW. BOTH PARENT AND YOUNG BIRDS CONSISTENTLY HUNTED OVER EXPOSED AREAS AND MOVED ABOUT WITHIN THEIR TERRITORIES TO TAKE ADVANTAGE OF EXPOSED GROUND.

ELLIS, D.H. 1978. 5310
PEREGRINE FALCON MANAGEMENT, ALTERNATIVES FOR ARIZONA FORESTS.
UNPUBL. REP. U.S. FOREST SERVICE, FT. COLLINS, COLORADO. 40 PP.

THIS REPORT PROVIDES THE WILDLIFE MANAGER WITH DATA ON THE HABITAT PREFERENCES AND MANAGEMENT ALTERNATIVES FOR ARIZONA PEREGRINE FALCONS. THE EARLY AND RECENT BREEDING NICHES OF THE FALCON ARE DESCRIBED. IMPORTANT HABITAT EVALUATION FACTORS ARE IDENTIFIED AND COLLATED INTO A TABULAR KEY FOR FIELD USE. FIELD SURVEY METHODS ARE OUTLINED, AND IMPORTANT MANAGEMENT AREAS ARE DELINEATED. POSSIBLE MANAGEMENT ALTERNATIVES FOR IMPROVING HABITAT AND INCREASING REPRODUCTIVE PERFORMANCE ARE BRIEFLY DISCUSSED. WITH THESE TOOLS THE MANAGEMENT BIOLOGIST IS EQUIPPED TO MAKE MANAGEMENT DECISIONS TO ENSURE THE FALCON'S SURVIVAL IN ARIZONA. MANY MANAGEMENT ALTERNATIVES ARE AVAILABLE. THOSE DISCUSSED HERE INVOLVE HABITAT PRESERVATION, CONTROLLING DISRUPTIVE HUMAN ACTIVITIES, AND ENHANCING PRODUCTIVITY. (FROM AUTHOR'S ABSTRACT.) (CITE ONLY WITH AUTHOR'S PERMISSION.)

FYFE, R.W., AND H.I. ARMBRUSTER. 1977. 5351
RAPTOR RESEARCH AND MANAGEMENT IN CANADA.
IN: WORLD CONFERENCE ON BIRDS OF PREY, REPORT OF PROCEEDINGS. R.D. CHANCELLOR (ED.). INTERNATIONAL COUNCIL FOR BIRD PRESERVATION. PP. 282-293.

GAUSE, T. 1980. 5364
METROPOLITAN WASHINGTON RAPTOR SOCIETY NEWSLETTER 3(4). JANUARY 1980.

HARRIS, V.T., AND P.H. ESCHMEYER (EDS.). 1975. 5402
SPORT FISHERY AND WILDLIFE RESEARCH 1973-74.
U.S. FISH AND WILDLIFE SERVICE, WASHINGTON, D.C. 178 PP.

HAUGH, J.R., AND K.C. HALPERIN. 1976. 5404
EVALUATION OF RAPTOR POPULATIONS, PORTAGE GLACIER AREA, DENALI HIGHWAY AREA, YUKON RIVER PIPELINE CROSSING AREA, AND YUKON RIVER AND PORCUPINE RIVER TRIBUTARIES.
UNPUBL. REP. U.S. BUREAU OF LAND MANAGEMENT, ANCHORAGE, ALASKA. 58 PP.

THIS RAPTOR SURVEY ALSO EVALUATES THE PROBABLE INFLUENCE AND POSSIBLE BENEFITS OF CONSTRUCTING ARTIFICIAL NESTING PLATFORMS FOR RAPTORS AT THE SAGWON BLUFFS ON THE SAGAVANIRKTOK RIVER.

HICKEY, J.J. 1942. 5423
EASTERN POPULATION OF THE DUCK HAWK.
AUK 59: 176-204.

THIS IS A CLASSIC POPULATION STATUS AND LIFE HISTORY STUDY OF THE PEREGRINE FALCON IN THE EASTERN UNITED STATES. MANAGEMENT IMPLICATIONS ARE INCLUDED IN DISCUSSIONS OF MAN-MADE NESTING STRUCTURES, CAUSES OF NEST DESERTIONS AND EGG AND YOUNG MORTALITY, THE IMPORTANCE OF SHOOTING AND OTHER MORTALITY FACTORS, THE LEVEL OF TOLERANCE OF HUMAN DISTURBANCE, AND THE VARIABILITY OF NEST SITE TENACITY OF ADULT PEREGRINES. SIX MANAGEMENT RECOMMENDATIONS ARE MADE INCLUDING: 1. PHASING OUT OF THE NAME 'DUCK HAWK,' 2. LEGAL PROTECTION OF THE SPECIES BY ALL STATE GOVERNMENTS, 3. PRESERVATION OF INDIVIDUAL EYRIES, INCLUDING EYRIE SURVEILLANCE, 4. ALLOWING PEGRERINES TO BE KEPT IN CAPTIVITY ONLY UNDER SPECIAL LICENSE, 5. PLACING BIRD BOXES ON BUILDINGS, BRIDGES, ETC., WHERE ADULT PEREGRINES HANG OUT, AND 6. CONTINUED RESEARCH INTO PEREGRINE FALCON STATUS AND LIFE HISTORY.

MCNULTY, F. 1978. 6174
LAST DAYS OF THE CONDOR. PART II.
AUDUBON 80(3): 78-82, 86, 91-92, 94, 96-100.

OLENDORFF, R.R. 1973. 5584
RAPTORIAL BIRDS OF THE U.S.A.E.C. HANFORD RESERVATION, SOUTHCENTRAL WASHINGTON.
BATTELLE PACIFIC NORTHWEST LABORATORY TECH. REP. NO. BNWL-1790 UC-11. RICHLAND, WASHINGTON. 45 PP.

OVER 50 NESTING PAIRS OF RAPTORS WERE FOUND ON THE U.S. ATOMIC ENERGY COMMISSION'S HANFORD RESERVATION IN SOUTH-CENTRAL WASHINGTON DURING 17 MAN-DAYS AFIELD IN 1973. THE DENSITIES OF LARGE RAPTORS IN THE VARIOUS REGIONS RANGED FROM NO PAIRS WHERE NEST SITES WERE UNAVAILABLE, TO AN EXTRAPOLATED AVERAGE OF 44.4 PAIRS PER 100 SQUARE MILES NEAR THE OLD TOWNS OF HANFORD, WHITE BLUFFS, AND EAST WHITE BLUFFS. COMPARISION WITH THE RAPTOR POPULATIONS OF NORTHEASTERN COLORADO WERE MADE. AT HANFORD THE NUMBER OF RAPTORIAL SPECIES WAS LESS, BUT THE NUMBER OF PAIRS OF LARGE RAPTORS NESTING PER UNIT AREA (DENSITY) WAS COMPARABLE TO OR GREATER THAN ON THE PAWNEE NATIONAL GRASSLAND AND ADJACENT PRIVATELY OWNED LAND IN COLORADO. RECOMMENDATIONS FOR FURTHER STUDIES AND MANAGEMENT ARE PRESENTED.

OLENDORFF, R.R., AND J.W. STODDART, JR. 1974. 5586
POTENTIAL FOR MANAGEMENT OF RAPTOR POPULATIONS IN WESTERN GRASSLANDS.
IN: MANAGEMENT OF RAPTORS. F.N. HAMERSTROM, JR., B.E. HARRELL, AND R.R. OLENDORFF (EDS.). RAPTOR RES. REP. NO. 2. PP. 47-88.

A DISCUSSION OF RAPTOR MANAGEMENT IS INITIATED WITH THE PREMISE THAT MANAGEMENT OF WILD POPULATIONS OF BIRDS OF PREY IS ADVISABLE, FEASIBLE, AND MAY BE MANDATORY TO PREVENT FURTHER LOCAL DECLINES IN RAPTOR NUMBERS, OR EXTINCTION OF ALREADY THREATENED SPECIES. FIELD EVIDENCE FOR THE POTENTIAL FOR RAPTOR MANAGEMENT IN WESTERN GRASSLANDS IS DEVELOPED MOSTLY FROM NEW DATA. POTENTIAL METHODS OF INCREASING BOTH BREEDING POPULATION LEVELS AND OVERALL PRODUCTION OF YOUNG ARE ENUMERATED AND DISCUSSED IN DETAIL, INCLUDING MOST MANAGEMENT OPTIONS INVOLVING THE INTERPLAY BETWEEN CAPTIVE BREEDING, REINTRODUCTION, AND WILD POPULATIONS. THE AUTHORS BELIEVE THAT THE CAUSE OF RAPTOR MANAGEMENT--INDEED, THE WELFARE OF BIRDS OF PREY IN GENERAL--WILL BEST BE SERVED BY WIDESPREAD KNOWLEDGE OF POTENTIAL TECHNIQUES BEFORE EXTENSIVE RAPTOR MANAGEMENT PROGRAMS GET UNDERWAY. THIS SHOULD HASTEN FIELD TESTING AND IMPLEMENTATION OF EMERGENCY CONSERVATION MEASURES, AND SHOULD CATALYZE GRASS ROOTS MANAGEMENT (AUTHORS' ABSTRACT.)

ROSENEAU, D.G., C.E. TULL, AND R.W. NELSON. 1981. 6140
PROTECTION STRATEGIES FOR PEREGRINE FALCONS AND OTHER RAPTORS ALONG THE PROPOSED NORTHWEST ALASKAN GAS PIPELINE ROUTE.
PREPARED FOR NORTHWEST ALASKAN PIPELINE COMPANY BY LGL ALASKA RESEARCH ASSOCIATES, INC., FAIRBANKS, ALASKA. 328 PP.

SAUROLA, P. 1978. 5641
ARTIFICIAL NEST CONSTRUCTION IN EUROPE.
IN: BIRD OF PREY MANAGEMENT TECHNIQUES. T.A. GEER (ED.). BRITISH FALCONER'S CLUB. PP. 72-80.

BRIEFLY REVIEWS THE EXTENT TO WHICH ARTIFICIAL NEST STRUCTURES HAVE BEEN CONSTRUCTED FOR AND USED BY RAPTORS IN 11 EUROPEAN COUNTRIES, WITH SPECIAL EMPHASIS ON FINLAND. KESTRELS AND OSPREY HAVE MOST COMMONLY USED ARTIFICIAL NEST STRUCTURES, BUT OTHER SPECIES INCLUDING THE GOLDEN EAGLE, WHITE-TAILED SEA EAGLE, GOSHAWK, GYRFALCON, HOBBY, COMMON BUZZARD, ROUGH-LEGGED BUZZARD, GREAT GREY OWL, AND URAL OWL HAVE ALSO NESTED ON SUCH STRUCTURES.

SCOTT, T.G., H.C. SCHULTZ, AND P.H. ESCHMEYER (EDS.). 1978. 6177
SPORT FISHERY AND WILDLIFE RESEARCH 1975-76.
U.S. FISH AND WILDLIFE SERVICE, WASHINGTON, D.C. 140 PP.

SNYDER, N.F.R., AND H.A. SNYDER. 1975. 5667
RAPTORS IN RANGE HABITAT.
IN: PROCEEDINGS OF THE SYMPOSIUM ON MANAGEMENT OF FOREST AND RANGE HABITATS FOR NON-GAME BIRDS. D.R. SMITH (ED.). U.S. FOREST SERVICE GEN. TECH. REP. WO-1. PP. 190-209.

/BP010RIP
ENTER FIRST AND LAST NAME AND AGENCY ACRONYM (IF APPROPIATE)
OF PERSON FOR WHOM THE REPORTS IS BEING REQUESTED (E.G., JOHN DOE(FWS)).
?? RICHARD OLENDORFF

ENTER USERS NAME RAMONA SHINE

BY SPECIES

DO YOU WANT REFERENCE NUMBERS BY KEYWORDS, SPECIES, OR BOTH

ENTER KEY, SPEC, 'OR' BOTH SPEC

THE SPECIES INDICES LIST ALL ITEMS WHICH MENTION THE SPECIES IN
ANY WAY. HOWEVER, ITEMS THAT ARE WHOLLY OR SUBSTANTIALLY ABOUT A
PARTICULAR SPECIES ARE FLAGGED.

DO YOU WANT ITEMS THAT ARE WHOLLY OR SUBSTANTIALLY ABOUT THE
SPECIES YOU ARE INTERESTED IN ? YES OR NO NO

ENTER SPECIES OR KEYWORDS SEPARATED BY A SEMICOLON BUNIT;BUANT

END OF RAPUPD

######################## REX CHARGE CODE ########################

ENTER REX CHARGE CODE [redacted]

REX PASSWORD

ENTER REX PASSWORD [redacted]

--- HANG ON THE COMPUTER WILL DO THE REST OF THE WORK
END OF KEYPRINT

DUE TO THE SIZE OF THE RAPTOR DATA BASE IT WILL TAKE
APPROXIMATELY 10 TO 15 MINUTES TO SELECT THE REFERENCE
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RAPTOR MANAGEMENT INFORMATION SYSTEM
COMPILED BY RICHARD R. OLENDORFF
U.S. BUREAU OF LAND MANAGEMENT
2800 COTTAGE WAY
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(916) 484-4701
FTS 468-4701

SPECIES REQUESTED: COMMON BLACK HAWK, GREY HAWK

THIS REPORT CONTAINS SELECTED ITEMS THROUGH REFERENCE NUMBER 6739

xxx NOTE xxx

1) All of these papers mention the species requested, even though that species may not be mentioned in the title or annotation.

2) This is not an exhaustive bibliography on the species requested. The RMIS gives only papers which have management or impact information on raptors. It is possible, however, that certain papers listed here may give management or impact information on some species other than the species requested--and only life history information about the species requested.

3) If you know of papers not listed here which concern management of and/or human impacts on the species requested, please send them (or at least their citations) to R. Olendorff at the above address. All such contributions to the RMIS will be greatly appreciated.

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There are several idiosyncrasies of the computer sorting system of which you should be aware. These are as follows:

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2. If an author's name is two words, it will come before a name which is one word beginning with the same sequence of letters (e.g., Van Vuren will come before Vancamp).

3. Anonymous papers are listed according to journal name, originating agency, or other appropriate designation.

4. The program sorts by first author (last name first and then initials), then by second author's initials, second author's last name, and so on. Eventually the data base will be edited to place all authors' last names ahead of their initials to ensure proper sorting. For now, papers with multiple authors may be slightly out of place.

5. All special punctuations associated with foreign alphabets are omitted in the computer program. These can be obtained by phone or letter from Richard R. (Butch) Olendorff.

6. If an item is edited by listed author, it will appear before items actually authored by that person (e.g., Borneman, J.C. (ed), 1981, comes before Borneman, J.C. 1966.).

7. If there is an apostrophe in a person's name, the reference will be found following all other references with the same sequence of letters preceding the apostrophe (e.g., O'Brien is at the end of the "O's").

8. All articles (a, and, the) at the beginning of titles are deleted.

9. All authors' first and middle names have been reduced to initials.

If you have questions about the RMIS, do not hesitate to write Richard R. (Butch) Olendorff, U.S. Bureau of Land Management, 2800 Cottage Way, Sacramento, California 95825 or phone (916) 484-4701 or FTS-468-4701.

ARIZONA GAME AND FISH DEPARTMENT, 1976. 5032
WILDLIFE SURVEYS AND INVESTIGATIONS [RAPTORS].
SPEC. PERFORMANCE REP. PROJ. NO. W-53-R-26. PHOENIX, ARIZONA. 77 PP.

THIS REPORT WAS PREPARED BY THE ARIZONA RAPTOR STUDY COMMITTEE AMIDST CONSIDERABLE ANTI-FALCONRY SENTIMENT IN THAT STATE. A RAPTOR BREEDING RECORD FORM IS INCLUDED. IT IS RECOMMENDED THAT A BIOLOGIST BE HIRED TO INITIATE A PROGRAM OF RAPTOR MANAGEMENT IN ARIZONA. APPENDIX 1 WRITTEN BY P. TANKERSLEY DISCUSSES THE RELATIONSHIP OF LOGGING TO RAPTOR NESTING SUCCESS. EMPHASIS IS ON GOSHAWKS.

ARIZONA GAME AND FISH DEPARTMENT, 1977. 5033
WILDLIFE SURVEYS AND INVESTIGATIONS [RAPTORS].
SPEC. PERFORMANCE REP. PROJ. NO. W-53-R-27. PHOENIX, ARIZONA. 72 PP.

THIS REPORT IS SIMILAR TO THE 1976 REPORT. MENTION IS MADE OF 2 HARRIS' HAWK NESTS ON MAN-MADE STRUCTURES (TYPE NOT GIVEN). B. LUCKETT FOLLOWED UP ON P. TANKERSLEY'S REPORT ON LOGGING AND RAPTORS. THE U.S. FOREST SERVICE IS COMMENDED FOR LEAVING GOSHAWK NEST TREES. A 1/4- TO 1/2-MILE BUFFER ZONE IS SUGGESTED AROUND GOSHAWK NESTS DURING THE NESTING SEASON. NO LOGGING IS TO OCCUR IN THE ZONE AT THAT TIME. THE CONCEPT OF MANAGING LOGGED AREAS TO INCREASE ECOLOGICAL DIVERSITY IN PATCHES (200-300 YARDS IN DIAMETER) IS SET FORTH. SNAG TREES, PARTICULARLY NEAR STANDS OF MATURE TREES, SHOULD BE LEFT.

ARIZONA GAME AND FISH DEPARTMENT, 1978. 6300
WILDLIFE SURVEYS AND INVESTIGATIONS [RAPTORS].
SPEC. PERFORMANCE REP. PROJ. NO. W-53-R-28. PHOENIX, ARIZONA. 41 PP.

CALL, M.W. 1978. 5199
NESTING HABITS AND SURVEYING TECHNIQUES FOR COMMON WESTERN RAPTORS.
U.S. BUREAU OF LAND MANAGEMENT TECH. REP. NO. T/N-316. DENVER, COLORADO.
115 PP.

DESCRIBES THE NESTING HABITATS OF MOST WESTERN RAPTORS AND DISCUSSES THE SURVEY METHODS FOR LOCATING SPECIFIC NEST SITES. INTRODUCTORY MATERIAL COVERS THE NEED FOR NEST SITE AND OTHER HABITAT USE DATA, THE GENERAL EFFECTS OF HUMAN DISTURBANCE, AND PRECAUTIONS TO BE TAKEN WHEN EXAMINING RAPTOR NESTS. SEVERAL SPECIES ACCOUNTS INCLUDE INFORMATION ON NESTING ON MAN-MADE STRUCTURES, THE SPECIFIC EFFECTS OF HUMAN DISTURBANCE, AND THE IMPORTANCE OF KEY HABITATS, SUCH AS RIPARIAN AREAS AND CLIFFS.

CALL, M.W. 1979. 6419
HABITAT MANAGEMENT GUIDES FOR BIRDS OF PREY.
U.S. BUREAU OF LAND MANAGEMENT TECHNICAL NOTE T/N-338. DENVER, COLORADO.
70 PP.

CHIHUAHUAN DESERT RESEARCH INSTITUTE. 1977. 5213
NESTING PEREGRINE FALCONS IN TEXAS, 1977.
ALPINE, TEXAS. 56 PP.

FISHER, A.K. 1895. 5979
HAWKS AND OWLS FROM THE STANDPOINT OF THE FARMER.
REPRINT FROM YEARBOOK OF THE DEPARTMENT OF AGRICULTURE FOR 1894.
WASHINGTON, D.C. PP. 215-232.

KIRVEN, M.N. 1976. 6092
ECOLOGY AND BEHAVIOR OF THE BAT FALCON, FALCO RUFIGULARIS.
PH.D. DISSERTATION. UNIVERSITY OF COLORADO, BOULDER. 139 PP.

LUCKETT, B. 1978. 6301
RAPTOR INVESTIGATIONS, MAY 16 TO AUGUST 18, 1977.
IN: ARIZONA GAME AND FISH DEPARTMENT, WILDLIFE SURVEYS AND INVESTIGATIONS (NONGAME INVESTIGATIONS). SPEC. PERFORMANCE REP. PROJ. NO. W-53-R-28.
PHOENIX, ARIZONA. 4 PP.

MILLSAP, B.A. 1981. 6636
DISTRIBUTIONAL STATUS OF FALCONIFORMES IN WESTCENTRAL ARIZONA...WITH NOTES ON ECOLOGY, REPRODUCTIVE SUCCESS, AND MANAGEMENT.
U.S. BUREAU OF LAND MANAGEMENT TECH. NOTE NO. T/N-355. DENVER, COLORADO. 102 PP.

MORRISON, M.L., AND B.J. WALTON. 1980. 6220
LAYING OF REPLACEMENT CLUTCHES BY FALCONIFORMES.
RAPTOR RES. 14: 79-85.

THIS PAPER DISCUSSES THE LAYING OF REPLACEMENT CLUTCHES BY NORTH AMERICAN RAPTORS BY REVIEWING EXISTING LITERATURE AND PRESENTING DATA GATHERED FROM OOLOGICAL COLLECTIONS AND FROM THE DOUBLE-CLUTCHING OF WILD AND CAPTIVE BIRDS. MOST SPECIES RECYCLE, HOWEVER, THE FREQUENCY OF RECYCLING DECLINED WITH AN INCREASING STAGE OF INCUBATION. CLUTCH SIZE DID NOT DECREASE SIGNIFICANTLY BETWEEN LAYINGS FOR MOST SPECIES. ALTHOUGH A SINGLE REPLACEMENT CLUTCH WAS USUALLY LAID, MULTIPLE REPLACEMENTS ARE KNOWN. AFTER LOSS OF THE FIRST CLUTCH, RAPTORS USUALLY RENESTED IN THE SAME SITE. IF A NEW LOCATION WAS USED, IT WAS USUALLY IN CLOSE PROXIMITY TO THE ORIGINAL SITE. ALTHOUGH DATA FROM AREAS NORTH OF SOUTHERN CANADA WERE SCARCE, IT APPEARED THAT RECYCLING WAS RARE IN ARCTIC REGIONS. HOWEVER, DOUBLE-CLUTCHING CAN BE USED IN MOST MANAGEMENT PLANS FOR NORTH AMERICAN RAPTORS (FROM AUTHORS' ABSTRACT).

MURPHY, J.R. 1978. 5545
MANAGEMENT CONSIDERATIONS FOR SOME WESTERN HAWKS.
TRANS. 43RD N. AMER. WILDL. AND NATURAL RESOURCES CONF. PP. 241-251.

A SUMMARY OF THREATS TO AND MANAGEMENT RECOMMENDATIONS FOR NINE SPECIES OF NORTH AMERICAN HAWKS AND EAGLES. THE DANGERS OF GOVERNMENTAL INTERAGENCY RIVALRY AND THE IMPORTANCE OF CONSERVATION ORGANIZATION INVOLVEMENT ARE DISCUSSED.

OLENDORFF, R.R. 1971. 6285
FALCONIFORM REPRODUCTION, A REVIEW. PART 1. THE PRE-NESTLING PERIOD.
RAPTOR RESEARCH REPORT NO. 1. VERMILLION, SOUTH DAKOTA. 111 PP.

OLENDORFF, R.R., AND M.N. KOCHERT. 1977. 5585
LAND MANAGEMENT FOR THE CONSERVATION OF BIRDS OF PREY.
IN: WORLD CONFERENCE ON BIRDS OF PREY, REPORT OF PROCEEDINGS.
R.D. CHANCELLOR (ED.). INTERNATIONAL COUNCIL FOR BIRD PRESERVATION.
PP. 294-307.

THIS PAPER ILLUSTRATES WAYS IN WHICH THE FOLLOWING OBJECTIVES ARE BEING MET ON LANDS ADMINISTERED BY THE BUREAU OF LAND MANAGEMENT (BLM) THROUGH PROGRAMS TO MAINTAIN, PROTECT, AND/OR ENHANCE HABITATS FOR BIRDS OF PREY. (1) TO STABILIZE UNSATISFACTORY OR DECLINING WILDLIFE HABITATS AND THEN TO MOVE FORWARD WITH HABITAT IMPROVEMENT PROJECTS; (2) TO ENSURE PROPER MANAGEMENT FOR HABITATS OF THREATENED OR ENDANGERED SPECIES, AND (3) TO PROVIDE INPUT INTO ALL OTHER BLM PROGRAMMES--SUCH AS LIVESTOCK GRAZING, TIMBER PRODUCTION, MINERAL LEASING, OIL AND GAS DEVELOPMENT, AND PUBLIC RECREATION--SO THAT WILDLIFE VALUES ARE CONSIDERED AND PROVIDED FOR IN PROGRAMME DEVELOPMENT AND IMPLEMENTATION. (ROUGHLY QUOTED FROM PAPER.)

OLENDORFF, R.R., R.S. MOTRONI, AND M.W. CALL. 1980. 6643
RAPTOR MANAGEMENT--THE STATE OF THE ART IN 1980.
U.S. BUREAU OF LAND MANAGEMENT TECHNICAL REPORT NO. T/N-345. DENVER, COLORADO. 56 PP.

PORTER, R.D., AND C.M. WHITE. 1977. 5606
STATUS OF SOME RARE AND LESSER KNOWN HAWKS IN WESTERN UNITED STATES.
IN: WORLD CONFERENCE ON BIRDS OF PREY, REPORT OF PROCEEDINGS.
R.D. CHANCELLOR (ED.). INTERNATIONAL COUNCIL FOR BIRD PRESERVATION.
PP. 39-57.

SCHNELL, J.H. 1979. 5645
BLACK HAWK (BUTEOGALLUS ANTHRACINUS).
U.S. BUREAU OF LAND MANAGEMENT TECH. REP. NO. T/N-329. DENVER, COLORADO.
25 PP.

THIS REPORT PROVIDES A LITERATURE REVIEW AND SUMMARY OF CURRENT KNOWLEDGE PERTAINING TO THE BLACK HAWK. EMPHASIS IS PLACED ON POPULATION STATUS AND TREND, VARIOUS ASPECTS OF LIFE HISTORY, HABITAT REQUIREMENTS AND LIMITING FACTORS, AND CURRENT PROTECTIVE MEASURES. SPECIES AND HABITAT MANAGEMENT TECHNIQUES ARE RECOMMENDED. A LIST OF ONGOING RESEARCH PROJECTS, AUTHORITIES, AND VARIOUS ORGANIZATIONS CONCERNED WITH THIS SPECIES' WELFARE IS ALSO INCLUDED.

SNYDER, H.[A.] [NO DATE.] 6249
PRELIMINARY REPORT ON THE STATUS, DISTRIBUTION, AND ECOLOGICAL REQUIREMENTS OF THE BLACK HAWK IN THE UNITED STATES OF AMERICA.
INTERIM REPORT TO THE WORLD WILDLIFE FUND, INTERNATIONAL COUNCIL FOR BIRD PRESERVATION, AND NATIONAL AUDUBON SOCIETY. 8 PP.

U.S. BUREAU OF LAND MANAGEMENT. 1974. 5721
STUDY OF THE INFLUENCE OF POWER TRANSMISSION LINES UPON BIRDS OF PREY HABITAT. APPENDIX F TO GREENLEE COUNTY, ARIZONA, TO EL PASO, TEXAS, 345 KV TRANSMISSION LINE, FINAL ENVIRONMENTAL STATEMENT.
NEW MEXICO STATE OFFICE, ALBUQUERQUE. PP. 333-343.

A STUDY OF RAPTOR USE OF ELECTRIC TRANSMISSION LINES AND TOWERS BASED ON OBSERVATIONS MADE IN CONJUNCTION WITH HELICOPTER LINE PATROL BY PUBLIC SERVICE COMPANY OF NEW MEXICO. OVER 200 OBSERVATIONS OF PERCHED RAPTORS ARE ANALYZED ACCORDING TO HABITAT TYPE. NO NESTING OCCURRED ON THE TRANSMISSION TOWERS STUDIED.

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(916) 484-4701
FTS 468-4701

KEYWORDS REQUESTED: CROSS-FOSTERING, FOSTERING

SPECIES REQUESTED: FERRUGINOUS HAWK

THIS REPORT CONTAINS SELECTED ITEMS THROUGH REFERENCE NUMBER 6254

xxx NOTE xxx

1) All of these papers mention the species and keywords requested, even though it may not be apparent from the title or annotation.

2) Is possible, however, that certain papers listed here may give information about a selected keyword (but for a different species) and information about the selected species only in a completely different context.

3) Thus, the following annotated bibliography should be used as a starting point in your search for the requested information. The best method for getting more specific information is to make use of the notecard aspect of the RMIS for the keyword(s) requested by contacting R. Olendorff at the above address.

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BECKER, D.M. 1978. 5051
SURVEY OF BREEDING RAPTORS ON AND ADJACENT TO CUSTER NATIONAL FOREST LANDS IN CARTER COUNTY, MONTANA.
UNPUBL. REP. U.S. FOREST SERVICE, BILLINGS, MONTANA. 82 PP.

CADE, T.J., AND P.R. DAGUE (EDS.). 1978. 5186
PEREGRINE FUND NEWSLETT. NO. 6. 12 PP.

CHANEY, E. 1979. 5210
SNAKE RIVER BIRDS OF PREY STUDY AREA SUMMARY REPORT.
U.S. BUREAU OF LAND MANAGEMENT, BOISE, IDAHO. 36 PP.

FYFE, R.W. 1976. 5349
RATIONALE AND SUCCESS OF THE CANADIAN WILDLIFE SERVICE PEREGRINE BREEDING PROJECT.
CAN. FIELD-NATUR. 90: 308-319.

THE CANADIAN WILDLIFE SERVICE PEREGRINE FALCON (FALCO PEREGRINUS) BREEDING PROJECT IS A POSITIVE ATTEMPT TO MAINTAIN GENE POOLS OF THIS SPECIES FOR FUTURE REINTRODUCTION INTO ITS FORMER RANGE. THE PROJECT ORIGINATED DIRECTLY FROM THE RESPONSE BY THE 34TH FEDERAL-PROVINCIAL WILDLIFE CONFERENCE TO THE DECLINE OF F.P. ANATUM AND F.P. TUNDRIUS THAT WAS RECORDED IN THE 1970 NORTH AMERICAN PEREGRINE SURVEY. OTHER SPECIES HAVE BEEN INCLUDED IN THE PROJECT FOR EXPERIMENTAL PROBLEM-SOLVING. RESEARCH HAS BEEN NECESSARY RELATIVE TO PAIR FORMATION, IMPRINTING, ARTIFICIAL INCUBATION, AND REINTRODUCTION. THE PROJECT HAS BEEN SUCCESSFUL IN CAPTIVE BREEDING OF FOUR FALCON SPECIES AND IN EXPERIMENTAL RELEASES UTILIZING FOSTERING AND CROSS-FOSTERING TECHNIQUES. CONSIDERABLE REFINEMENT IS NECESSARY IN BOTH BREEDING AND RELEASE TECHNIQUES. (AUTHOR'S ABSTRACT.)

FYFE, R.W., AND H.I. ARMBRUSTER. 1977. 5351
RAPTOR RESEARCH AND MANAGEMENT IN CANADA.
IN: WORLD CONFERENCE ON BIRDS OF PREY, REPORT OF PROCEEDINGS. R.D. CHANCELLOR (ED.). INTERNATIONAL COUNCIL FOR BIRD PRESERVATION. PP. 282-293.

FYFE, R.W., H.I. ARMBRUSTER, U. BANASCH, AND L.J. BEAVER. 1978. 5352
FOSTERING AND CROSS-FOSTERING OF BIRDS OF PREY.
IN: ENDANGERED BIRDS: MANAGEMENT TECHNIQUES FOR PRESERVING THREATENED SPECIES. S.A. TEMPLE (ED.). UNIVERSITY OF WISCONSIN PRESS, MADISON. PP. 183-193.

FOSTERING AND CROSS-FOSTERING OF EGGS BETWEEN THE LARGE FALCONS IS A REASONABLE AND RELIABLE MANAGEMENT TECHNIQUE. ADULT PEREGRINE FALCONS, PRAIRIE FALCONS, AND GYRFALCONS, AS WELL AS FERRUGINOUS, RED-TAILED, AND SWAINSON'S HAWKS READILY ADOPT EGGS OR YOUNG OF OTHER RAPTOR SPECIES. THERE HAVE BEEN FEW REJECTIONS OF EGGS AND NO REJECTION OF YOUNG IN EITHER FOSTERING OR CROSS-FOSTERING SITUATIONS. EXCEPT FOR CASES OF NATURAL MORTALITY DUE TO PREDATION, WEATHER, ETC., ALL OF THE FOSTERED OR CROSS-FOSTERED YOUNG HAVE FLEDGED SATISFACTORILY. AT LEAST SOME OF THESE YOUNG HAVE SUBSEQUENTLY ENTERED WILD BREEDING POPULATIONS.

HAMERSTROM, FRANCES. 1977. 5391
INTRODUCING CAPTIVE-REARED RAPTORS INTO THE WILD.
IN: WORLD CONFERENCE ON BIRDS OF PREY, REPORT OF PROCEEDINGS.
R.D. CHANCELLOR (ED.). INTERNATIONAL COUNCIL ON BIRD PRESERVATION.
PP. 348-353.

HOWARD, R.P., AND M.L. WOLFE. 1976. 5964
RANGE IMPROVEMENT PRACTICES AND FERRUGINOUS HAWKS.
J. RANGE MANAGE. 29: 33-37.

EFFECTS OF RANGE IMPROVEMENT PRACTICES ON FERRUGINOUS HAWK POPULATIONS ARE DISCUSSED. STUDIES OF HABITAT REQUIREMENTS AND NESTING ECOLOGY IN 1972 AND 1973 PROVIDED DATA FOR THESE DISCUSSIONS. RECOMMENDATIONS FOR MINIMIZING ADVERSE IMPACTS OF RANGE IMPROVEMENT PRACTICES ARE PRESENTED.

KONKEL, D. 1977. 5468
REPORT ON THE PEREGRINE FALCON CROSS-FOSTERING EXPERIMENT IN THE SNAKE RIVER BIRDS OF PREY NATURAL AREA.
PEREGRINE FUND, CORNELL UNIVERSITY, ITHACA, NEW YORK. 27 PP.

ON MAY 12, 1977, THREE THIRTEEN-DAY-OLD CAPTIVE-BRED PEREGRINE FALCONS WERE PLACED IN A PRAIRIE FALCON EYRIE IMMEDIATELY FOLLOWING THE REMOVAL OF THE PRAIRIE FALCON YOUNG. THIS DOCUMENT CONSISTS OF THREE SECTIONS: SECTION I IS COMPOSED OF A SUMMARY OF THE PRE-FLEDGING DEVELOPMENTS OF THE FOSTERED FALCONS, SECTION II CONSISTS OF A SUMMARY OF THE POST-FLEDGING DEVELOPMENTS, AND SECTION III CONTAINS COMMENTS, AN EVALUATION, AND SUGGESTIONS CONCERNING THE PEREGRINE FALCON CROSS-FOSTERING EXPERIMENT IN THE SNAKE RIVER BIRDS OF PREY NATURAL AREA.

OLENDORFF, R.R., AND J.W. STODDART, JR. 1974. 5586
POTENTIAL FOR MANAGEMENT OF RAPTOR POPULATIONS IN WESTERN GRASSLANDS.
IN: MANAGEMENT OF RAPTORS. F.N. HAMERSTROM, JR., B.E. HARRELL, AND R.R. OLENDORFF (EDS.). RAPTOR RES. REP. NO. 2. PP. 47-88.

A DISCUSSION OF RAPTOR MANAGEMENT IS INITIATED WITH THE PREMISE THAT MANAGEMENT OF WILD POPULATIONS OF BIRDS OF PREY IS ADVISABLE, FEASIBLE, AND MAY BE MANDATORY TO PREVENT FURTHER LOCAL DECLINES IN RAPTOR NUMBERS, OR EXTINCTION OF ALREADY THREATENED SPECIES. FIELD EVIDENCE FOR THE POTENTIAL FOR RAPTOR MANAGEMENT IN WESTERN GRASSLANDS IS DEVELOPED MOSTLY FROM NEW DATA. POTENTIAL METHODS OF INCREASING BOTH BREEDING POPULATION LEVELS AND OVERALL PRODUCTION OF YOUNG ARE ENUMERATED AND DISCUSSED IN DETAIL, INCLUDING MOST MANAGEMENT OPTIONS INVOLVING THE INTERPLAY BETWEEN CAPTIVE BREEDING, REINTRODUCTION, AND WILD POPULATIONS. THE AUTHORS BELIEVE THAT THE CAUSE OF RAPTOR MANAGEMENT--INDEED, THE WELFARE OF BIRDS OF PREY IN GENERAL--WILL BEST BE SERVED BY WIDESPREAD KNOWLEDGE OF POTENTIAL TECHNIQUES BEFORE EXTENSIVE RAPTOR MANAGEMENT PROGRAMS GET UNDERWAY. THIS SHOULD HASTEN FIELD TESTING AND IMPLEMENTATION OF EMERGENCY CONSERVATION MEASURES, AND SHOULD CATALYZE GRASS ROOTS MANAGEMENT (AUTHORS' ABSTRACT.)

WHITE, C.M. 1974. 5761
CURRENT PROBLEMS AND TECHNIQUES IN RAPTOR MANAGEMENT AND CONSERVATION.
TRANS. 39TH N. AMER. WILDL. AND NATUR. RESOURCES CONF. PP. 301-311.

RAPTOR DECLINES ARE RELATED TO AT LEAST FIVE BROAD CATEGORIES: 1) A DIMINUTION OF RAPTOR HABITAT THROUGH MAN'S UTILIZATION OF IT, 2) REDUCTION OF RAPTOR FOOD SOURCES, 3) EFFECTS OF CHEMICAL POLLUTANTS, PRIMARILY THE CHLORINATED HYDROCARBONS, 4) DIRECT MORTALITY BY SHOOTING, ELECTROCUTIONS, ETC., AND 5) EXPLOITATION FOR PERSONAL OR ECONOMIC GAIN. DISCUSSES THE PROBLEMS FACING RAPTORS AND THEIR MANAGEMENT AS IT APPLIES TO THESE CATEGORIES, AND PRESENTS SOME OF THE METHODS AND TECHNIQUES BEING USED TO HELP MODERATE THE CAUSATIVE FACTORS. THESE INCLUDE NESTING HABITAT MODIFICATIONS, ARTIFICIALLY INCREASED NESTLING SURVIVAL, EGG SUBSTITUTION AND MANIPULATION, AND CAPTIVE BREEDING.

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